

Pergamon Titles of Related Interest

Barney *The Global 2000 Report to the President of the U.S.:
Entering the 21st Century; Volume I—Summary Report; Volume
II—Technical Supplement*

Carman *Obstacles to Mineral Development: A Pragmatic View*

Chou/Harmon *Critical Food Issues of the 80s*

Diwan/Livingston *Alternative Development Strategies and
Appropriate Technology: Science Policy for an Equitable World
Order*

Franko/Selber *Developing Country Debt*

Fritz *Combating Nutritional Blindness in Children: A Case
Study of Technical Assistance in Indonesia*

Golany *Arid Zone Settlement Planning: The Israeli
Experience*

Goodman/Love *Management of Development Projects: An
International Case Study Approach*

Meagher *An International Redistribution of Wealth and Power:
A Study of the Charter of Economic Rights and Duties of States*

Menon *Bridges Across the South*

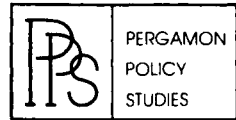
Morris *Measuring the Condition of the World's Poor: The
Physical Quality of Life Index*

Stepanek *Bangladesh—Equitable Growth?*

Thomas/Wionczek *Integration of Science and Technology
with Development: Caribbean and Latin American Problems in
the Context of the United Nations Conference on Science and
Technology for Development*

VISIT...

LANZAROTE
Caliente.COM



The Political Economy of Collectivized Agriculture/A Comparative Study of Communist and Non-Communist Systems

**Edited by
Ronald A. Francisco
Betty A. Laird
Roy D. Laird**

Pergamon Press

NEW YORK • OXFORD • TORONTO • SYDNEY • FRANKFURT • PARIS

Pergamon Press Offices:

U.S.A.	Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, New York 10523, U.S.A.
U.K.	Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW, England
CANADA	Pergamon of Canada, Ltd., 150 Consumers Road, Willowdale, Ontario M2J, 1P9, Canada
AUSTRALIA	Pergamon Press (Aust) Pty. Ltd., P O Box 544, Potts Point, NSW 2011, Australia
FRANCE	Pergamon Press SARL, 24 rue des Ecoles, 75240 Paris, Cedex 05, France
FEDERAL REPUBLIC OF GERMANY	Pergamon Press GmbH, 6242 Kronberg/Taunus, Pferdstasse 1, Federal Republic of Germany

Copyright © 1979 Pergamon Press Inc.

Library of Congress Cataloging in Publication Data

Main entry under title:

The Political economy of collectivized agriculture.

Revisions of papers originally presented at the
Sept. 1977 American Political Science Association meeting
in Washington, D. C. and subsequently at a conference
held at the University of Nebraska in April 1978.

Includes index.

1. Collective farms—Europe, Eastern—Congresses.

I. Francisco, Ronald A. II. Laird, Betty A.

III. Laird, Roy D.

HD1492.E8P64 1979 334'.683'0947 78-26515

ISBN 0-08-023880-7

*All Rights reserved. No part of this publication may be reproduced,
stored in a retrieval system or transmitted in any form or by any means:
electronic, electrostatic, magnetic tape, mechanical, photocopying,
recording or otherwise, without permission in writing from the
publishers.*

Printed in the United States of America

Preface

However controversial, agricultural collectivization based upon Marxist-Leninist tenets is no longer an experiment. According to the United Nations Food and Agriculture Organization (FAO) data, some 30 percent of the world's arable land is in the centrally planned economies, where the vast bulk of it is cultivated in collective or state farms. Clearly, therefore, a knowledge of the successes and failures of collectivization is of crucial import to any understanding of the possible future course of a hungry world.

Each of the contributors to this volume is a specialist on the centrally planned economy about which he has written. Each presented a paper on the topic at the September 1977 American Political Science Association (APSA) meeting in Washington, D. C. Subsequently, revised and updated versions were presented at a conference held at the University of Nebraska in April 1978, with the thought that they should be published in the present volume.

Ronald A. Francisco, Assistant Professor of Political Science and Soviet and East European Affairs at the University of Kansas specializes in East German agriculture. Roy D. Laird, Professor of Political Science and Soviet and East European Affairs at the University of Kansas is founder of the informal, but long-standing, Conference on Soviet and East European Agricultural and Peasant Affairs. Betty A. Laird is an independent research analyst specializing in rural affairs and Soviet agriculture.

Among the many who deserve credit for making this volume possible, two people should receive special thanks: Darlene Heacock, Secretary extraordinaire of the University of Kansas Soviet and East European Area Center, and Deborah Francisco, who has proved to be an enthusiastic and invaluable initiate into the delights and drudgeries of making a book.

Finally, the University of Kansas, the Hesston Foundation, and the Institute for the Study of World Politics must be thanked for their crucial support of the project.

The Editors

Introduction

Approximately one-third of the world's agricultural land is collectively owned and/or farmed. This proportion was reached during the post-World War II era when many states implemented variations on the Soviet Marxist-Leninist-Stalinist model of agricultural organization. Although some collectivizing nations hoped for improved productivity as a by-product, the move to collectivization was based largely upon a perceived need for political and economic controls, plus ideological prescription, since the Soviet experience offered no promise that productivity would increase. The same kind of doctrinaire loyalty to Marxist-Leninist thought prompted many Third World nations to adopt collectivization policies. While some nations, notably in North Africa, have retreated from this commitment, others continue to pursue the policy or to weigh its feasibility. Yet because there has been little systematic knowledge about the impact of collectivization on food production and political stability, these critical decisions are based largely on the canons of ideology and very informal perceptions of other nations' experiences.

Clearly, we need better information about the effects of collectivization. The prospects for domestic shortfall in basic food production are well documented and grim. The World Food Council has identified forty-three countries which may have basic grain deficits exceeding 100 million metric tons by 1985 unless they are helped to self-sufficiency. Recent history has shown that population increases and shortages of hard currency disrupt many nations' reliance upon the international trade and aid mechanism. Since the situation is unlikely to improve, especially if weather problems plague exporting nations, few countries will be able to afford the dubious luxury of an ideologically pure collectivization policy unless there is a concomitant prospect for political stability and rapid increases in food production.

COLLECTIVIZATION POLICIES AND OUTCOMES

This volume attempts to assess the political and economic impact of collectivization by surveying the experience of several nations with different forms of collective or state farming. Although agricultural economists have trod much of this ground before us, their interests are concentrated in the economic realm. They seek empirical theories of production and study the integration of agriculture with other sectors of the economy. The issue is approached here on a different plane; we recognize that any tampering with agricultural production often has far-reaching political implications. Agriculture is the primordial sector in most nations' economies. Further, the farming population is likely to be entrenched in a way of life with strong traditional roots - e.g., the peasantry in Eastern Europe and Asia, or the tribal systems in Africa. Collectivization, even when implemented with great care and circumspection, often represents a cataclysmic break with traditional norms. We are interested, then, in the sociopolitical as well as the economic impact of collectivization.

With this in mind, we focus on a series of questions which any government contemplating collectivization must confront:

1. Is collectivized agriculture more or less efficient than private agriculture?

The answer to this question may depend upon how efficiency is measured and what kind of private agriculture is at issue. Does collectivization represent a desirable way to consolidate peasant operations of suboptimum unit size into a more economically efficient mode of production? What happens if modern, efficient agricultural enterprises are collectivized?

2. Does the manner in which collectivization is implemented affect its success?

Is there an observable difference in the outcomes of forced and voluntary plans of collectivization? Does the amount of financial support and technical assistance from the regime have a significant impact on the policy's legitimacy and effectiveness? How successful are financial and political incentives in convincing farmers and peasants to collectivize voluntarily? In a feudal or even pre-feudal economy, is full and immediate collectivization feasible? Must it be preceded by a land reform and a period of transition? And then what happens when the land distributed during the reform is repossessed and collectivized?

3. Why are some collectivized systems much more economically successful than others?

The range of efficiency and productivity among collective farming systems is surprisingly large. The Israeli kibbutz stands at the pinnacle

of all such systems, as it has for decades. While these farms are arguably a product of unique circumstances, some Soviet-type collective systems, such as the German Democratic Republic do not lag too far behind. Yet other Soviet-style systems, including the USSR itself, simply have not met expected standards of production. Since the gross organizational structures of all these systems are roughly equivalent, what accounts for this disparity? How different is the Chinese commune system, and why have Third World nations had difficulty establishing successful collective and cooperative farming?

4. Are there sometimes social and political motivations that override economic considerations?

Few political leaders seek to collectivize agriculture for economic reasons alone. In fact, many doubtless know that there will be at least short-term costs in productivity when collectivization causes a fundamental upheaval in the rural social order. Important concerns beyond ideology may justify the change. Collectivization might, for example, be an important tool in the nation-building process. It might be the most practical means of achieving interest articulation and aggregation in rural areas. Conversely, it might provide a regime with an easily-controlled hierarchy of economic, political, and administrative centers in the countryside.

Whether or not political uses of collectivization succeed depends in large measure on peasant reaction. Peasants traditionally have been skeptical about sudden and drastic changes in their way of life. Few are susceptible to promises of higher potential incomes or easier, more rationalized work schedules. Typically, they have a strong legal, political, economic, and emotional attachment to their habitat. What then, is the impact of a collectivization drive on peasant perceptions of the government? How does it affect the legitimacy of the regime in the countryside? How have some regimes been able to gain peasant support for collectivization, or at least to mitigate negative reaction? And what is the impact of peasant reaction - both positive and negative - upon agricultural output and the food supply?

5. Who rules on the collective?

Is there generally a pattern of mass participation or does the old rural elite continue to rule the community? Are new managers imposed on the collective by the state? How much do cooperative, collective, and state farms vary in the breadth of political and managerial control?

6. How does collectivization affect motivation and innovation?

Can entrepreneurship, motivation, and innovation be sustained in the relative absence of a personal reward motive? How widespread are special bonuses and other financial incentives in collective systems? In the absence of financial motivation, are appeals to altruism, patriotism, communal spirit, and pride sufficient incentives?

SCOPE

Although all of the answers are not forthcoming, these questions are investigated here by recounting and analyzing the experiences of a diverse set of nations which have adopted collective farm systems. The Council for Mutual Economic Assistance (CMEA) nations dominate our sample, just as they do the world's collective agricultural systems. Within CMEA, however, there are vast differences in national history, demographic patterns, and even in the extent of collective agriculture. We present also the experiences of very different collective arrangements: the commune system in the People's Republic of China, the Israeli kibbutz, and the now-abandoned Tunisian experiment with cooperative farming.

Our aim is to learn from these national experiences where collectivization has been most successful and where least, what factors have affected its performance in relation to food production, what techniques have been most successful in maintaining political stability and legitimacy in the countryside, and, finally, what prices have been paid for achieving collectivization.

1 The Plusses and Minuses of State Agriculture in the USSR

Roy D. Laird

The collectivization of Russian peasant agriculture began with the horrors of mass deportation and ended with the ordeal of mass famine. Lazar Volin (1)

INTRODUCTION

A State System

The rhetoric of Marxism-Leninism has been one of the most successful in all history in persuading even its opponents to employ its own terms in evaluating its successes and failures, however misleading such an acquiescence may be. Therefore, to begin with, it should be acknowledged that for many years there has not been collectivized agriculture in the USSR. Although the term will be used here for the sake of convenience, that which is labeled as "collective" is thoroughly controlled by the state.

Even in the Soviet lexicon, no nonsense is made about the sovkhozy. The peasant workers on the state farms are wage earners employed by the state. However, the pretense that the kolkhozy are still somehow collective enterprises is rigorously maintained, even though such a distinction has been virtually meaningless since Khrushchev's amalgamations fully implanted the party on the farms in the 1950s.

Visit any Soviet kolkhoz and you will be told that the farm, in compliance with the national Model Charter, is controlled by a democratic vote cast in periodic general meetings by all the working members. The fiction

is maintained that the general meetings not only determine all policies, but also decide all key issues, including the election of a chairman and other officials who administer the day-to-day affairs of the farm. However, as in all Soviet elections, there is only one candidate for a position, and that nomination is determined by the oblast party group through the nomeklatura system.

Even though some production decisions may be made on the farms, all are geared to fulfilling the state-determined purchase plans which dictate the destination of the bulk of the farm's output. All matters left to internal decision are made by the chairman and his staff; and they are under the close and constant supervision of the kolkhoz party secretary and a party group of over forty members, who, in turn, are subject to strict external discipline.

The real purpose of kolkhoz "democracy," which produces the collective will, is to achieve a uniform agreement on what needs to be done. As Soviet philosophers repeatedly point out, freedom is the "perception of necessity"; that is, the individual accepts whatever is inevitably determined by the laws of Marxism and Leninism. Therefore, responding to the various means of persuasion used by Soviet managers, the farm members attend the general meetings and cast their votes to ratify the inevitable will of the state, as interpreted by the chairman and his assistants.

Some Major Achievements

Given the values and goals expressed by Soviet leaders from Lenin to Brezhnev, collectivization of agriculture has proved to be a resounding success. *

Stalin and his colleagues admitted openly that the initiation of collectivization at the end of the 1920s was a "revolution from above" imposed upon the peasants below. (2) However, even to this day, there is vigorous denial that the peasants were forced into the collectives. The line is that, although some over-zealous comrades may have pushed things too fast in the earliest phase and made necessary Stalin's "dizzy with success" speech of 1930, the overwhelming sentiment of the peasants was favorable, and the experiment has since been marked by successes that must be emulated the world over.

* Unless otherwise indicated, the use of the term "collectivization" will encompass both the state, sovkhoz, and collective, kolkhoz, segments of Soviet agriculture.

When the experiment is examined in the light of the developmental priorities Stalin had set for the nation, one must grant that the system has served well the ideological, sociopolitical, and economic goals.

Ideological

Bolshevism came to power in the name of providing a springboard from which to bring the blessing of communism to the world. However, by the end of the 1920s Stalin had decided to modify the doctrine to read that Marxist-Leninist socialism could, and should, be built in one state. The world might ask, and Stalin must have asked himself, how a system could possibly pretend to be building state socialism when, in fact, a majority of the population, which was peasant at the time, are excluded from its benefits? Collectivization of agriculture, therefore, was essential to any acceptable claim of building communism.

Two other points, closely related to each other, which are primarily ideological in content, had to be accounted for: the worship of hugeness and of the industrial form. In Marxism-Leninism and in Russian tradition there is a deeply-rooted conviction that that which is big is good, and that which is biggest is best, a "gigantomania" that sometimes is admitted openly. This conviction is particularly manifest in attitudes towards large industrial organizations. Lenin argued repeatedly that the industrialization of agriculture was unquestionably the superior path for the future of the countryside. Echoing Lenin's views, Stalin, in his October 19, 1928 speech, underscored the conviction that the socialization of agriculture was essential and that the path lay through industrialization of the countryside.

It is impossible to develop socialism in industry alone, and leave agriculture to the mercy of spontaneous development. . . . It is essential as Lenin says, "to transform the economic life of the country, including agriculture, to a new technical basis, the technical basis of modern large-scale production." (3)

Sociopolitical

While Stalin may well have felt that forced collectivization and the assistance that it would provide to rapid industrialization might enhance internal security in a world hostile to the Bolshevik experiment, this writer cannot accept the often-expressed argument that his perception of the oncoming war made collectivization imperative. (4) No one can accurately forecast a major war and the particular course it will take more than a decade in advance. Even after the war had started there was widespread agreement that Hitler was most irrational in opening the Eastern

front when he did. Basically, the Soviet people seriously needed more food, and the production advances made during the New Economic Policy (NEP) had been remarkable. As argued below, opting for a continuation of NEP in the 1930s, along with more favorable market terms for the peasants, surely would have gone a long way toward producing a relative abundance of food by the end of the decade.

Domestically, the imposition of collectivization seemed imperative for the survival of what has come to be known as Stalinism. Repeatedly, the collectives are credited with fashioning communist behavior in rural society; they are "schools of communism." Even more important than bringing socialism to the countryside at the time of collectivization was the promise that the farms gave for assuring control over the peasants' lives. This was essential to the dictatorship, at least until that distant and unknowable day when the "administration of people" can be replaced by "the administration of things." Unless and until the peasant majority could be effectively corralled, they posed a constant threat as the major base for effective counter-revolutionary action.

Lenin admitted that the key to Bolshevik success had been an alliance with the peasants. He also admitted that the retreat to the NEP, a "peasant Brest Litovsk," had been necessary for survival in face of mounting peasant opposition at the end of War Communism. (5) Obviously, toleration of an independent peasantry could not be extended indefinitely. Lenin had consistently argued that collectivization must be brought about through persuasion (6) and voluntary acceptance. However, once Stalin had charted the course to build "socialism in one state" as rapidly as possible, force became imperative. The result was to eliminate, once and for all, the rural base for opposition to Stalin's version of a Leninist system.

Economic

Those who are convinced that Stalinism was a "necessity" argue essentially that without forced-draft industrialization the system could not have survived. Perhaps, but whatever might have been, such a view implicitly accepts the Machiavellian argument shared by all good Leninists that the end justifies the means; whatever the costs, Stalin and company had every right and duty to do what they perceived as essential for survival. At this juncture in the argument, a point is often made that, even though agricultural output had nearly regained the 1913 level, marketing of produce, and especially of grain, was seriously down. It is true that early in 1928 grain collections dropped one-third below what they had been the previous year. However, when this point is made in support of the decision to collectivize forcefully, two major qualifications are almost always ignored. (7) First, the grain was not being wasted. Instead, for a change, the peasant majority were enjoying a superior diet. Second, and most important from a

policy choice point of view, the men in the Kremlin were responsible for the worsening "scissors crisis" which caused the peasants to withhold their produce. The prices paid the farmers for their produce, like the opening blades of a pair of scissors, were growing ever farther apart from the prices the peasants had to pay for urban-produced goods. The leadership had a clear choice. If it moved to close the scissors, the peasants would interpret the move as a signal to put more of their produce on the market and expand production in order to meet increasing demand. However, such a solution was totally unacceptable, as Stalin underscored as early as May 1928:

Perhaps it would be wise, as a measure of greater "caution," to retard the development of heavy industry, with the object of making light industry, which produced chiefly for the peasant market, the basis of our industry. By no means. That would be suicidal. (8)

Only two months later he openly admitted that central to his whole plan for rapid industrialization was placing a maximum burden on the peasants' backs.

The peasantry not only pays the state the usual taxes, direct and indirect; it also overpays in the relatively high prices for manufactured goods This is an additional tax levied on the peasantry for the sake of promoting industry, (9)

Even though the catastrophic disruption of food output caused by forced collectivization was primarily responsible for the horrors of the man-made famine of 1932-33, grain sales to the cities already were on the upswing. Specifically, whereas grain production in 1932 was nearly two million metric tons less than it was in 1930 (71.7 vs. 69.9), government procurements of grain were up 2.4 million tons and exports were up 400,000 tons. (10) This occurred in the midst of a famine that cost millions of lives, largely among the nation's food producers.

And MTS

Without attempting to repeat the whole Machine Tractor Station story here, we need to stress that MTS was a major factor behind the success of collectivization. Undoubtedly, after the Shevchenko experiment of 1927 (the first experimental MTS) came to Stalin's attention, he soon realized that it was the vital key to forcing the peasants into the collective farms. (11)

One does not have to be a Marxist-Leninist to realize that firm control over the means of production of an essential commodity will allow, in turn,

tight control over both the commodity and those whose lives depend directly upon its production. Thus, even more than the MTS offering an economic solution to the problem of the most rational use of scarce resources (i.e., the agricultural machinery), it provided the tool for seizing control of the villages. The proof of the pudding was that for years horses taken from the peasants were the major source of draft power for the MTS. (12) Without access to the horses, fields would not have been tilled.

The MTS were abandoned by Khrushchev in 1958 because the huge farms resulting from the amalgamations carried out earlier that same decade made the MTS an unnecessary source of control over the countryside and an added expense. The party was fully implanted on the farms.

MEASURES OF THE COSTS

TABLE 1.1 The Pace of Collectivization in Percent

	<u>1927</u>	<u>1929</u>	<u>1932</u>	<u>1937</u>
Percent of Households	0.8	3.9	61.5	93.0
Sown Area	---	4.9	77.7	99.1

Source: Narodnoe khozyaistvo SSSR v 1958 godu, Moscow 1959, p. 346.

The pace of collectivization was rapid. By July 1, 1937, 93 percent of the peasant households and 99 percent of the sown land could be counted in. The disruption of production that accompanied the drive resulted in mass starvation. Had Stalin opted for giving priority to light industry and agriculture, including closing the "scissors gap," famine would not have stalked the land. The most productive of the nation's farmers were destroyed. Yet, to cite the opposition, Kamenev made the following observation in support of the prosperous individual peasant in 1925:

We would have been mad if we considered a kulak to be that peasant who utilizes conditions created by the Soviet state to increase his prosperity and to raise the level of his farming. We would be cutting down the branch on which we sit. (13)

Measures of the economic price paid for "cutting down the branch" will be offered below, but the cost paid in human suffering must be examined first.

Human

The whole story in terms of anguish and death may never be known. However, according to Lazar Volin, "the number of lives lost during the collectivization period has been established by competent statisticians at the staggering figure of five million." (14) The man-made famine accounted for most of the deaths, but hundreds of thousands, perhaps more than a million peasants, lost their lives in the purge of the kulaks. Stalin called it raskulachivanie - i. e. , tearing them out by the roots. Curiously, although we have never seen the term applied elsewhere, a spade must be called a spade, and raskulachivanie was an act of mass genocide. The very best of the nation's farmers were either economically or physically exterminated. Here again, a point almost never discussed needs to be made. In agriculture in many nations only a small percentage of the farmers, perhaps between 5 and 10 percent, produce a disproportionate amount of the food in part because they achieve higher yields than those of their neighbors. For example, in the mid 1970s in India only 12 percent of the farmers were following the recommendations essential for reaping the full benefits of the "green revolution." (15) Of course, part of the explanation for this phenomenon is an economic advantage, but a good part is superior skill, intelligence, and perseverance, qualities often passed from parents to children. Whatever their real or imagined sins, the Soviet kulaks were the cream of the nation's farmers, and the genocide that destroyed them must still extract its toll from production output and efficiency. Certainly, by the mid 1930s Soviet agriculture was left in the hands of the nation's least effective producers who, in turn, were dominated increasingly by an outside party elite made up mostly of urban agricultural illiterates.

Total rule over the countryside by ignorant urbanites came when the party captured the kolkhozy during the amalgamation drive in the 1950s. Prior to that time only a small majority of the farms had party-member chairmen. To rectify that situation Khrushchev called upon urban party members to go out into the country and offer themselves as candidates for the positions. More than 20,000 went out into the villages and, by all indications, over 20,000 city party members were duly elected as farm chairmen. (16)

Production

Reflecting the Soviet practice of leaving blanks in statistical data when filling them would reflect unfavorably on the system, many blanks exist for agriculture during the 1920s and 1930s. Yet, enough new data have been published in the official statistical handbooks in recent years to provide important information about what happened in the 1930s.

Grain and Other Crops

Putting together the pieces of the puzzle, one learns that grain yields fell precipitously during the mid 1930s. A part of this decline, but by no means all of it, undoubtedly reflected unfavorable weather conditions. In any event, grain yields remained below previous levels until the end of the decade. Thus, whereas the annual average of grain yields for the years 1928-30 equalled 7.9 centners per hectare, it had rebounded to only 7.7 centners per hectare by 1938-40. (17) As shown in Table 1.2, the tiny advance in total grain output achieved during the period had to come entirely from an expansion of the sown area. However, this achievement was not enough to avoid an actual decline in the production of grain per capita, a loss that was not to be regained until after World War II. In sum, while the officially reported data for all crops imply a production advance during the period of some 15 percent, this was due to the fact that the sown area was expanded by 17 percent; in reality, the output of grain per capita actually fell 6 percent.

Meat

On learning that their animals would be taken from them, the peasants reacted in a way that can only be described as natural. The animals were their source of meat and had never been in ample supply. However, for a few months millions of the nation's peasants ate more meat than they had ever eaten before or have eaten since. While no data are available on meat production in the early 1930s, comparing the averages for 1926-28 with the 1937 low and the 1934-36 average leads one to the inescapable conclusion that the availability of meat in the years 1934-35 must have been dismal indeed. The official data reveal that meat production fell absolutely by 29 percent between 1926-28 and 1937, or a decline of 36 percent per capita, as shown in Table 1.3

TABLE 1.2 Collectivization, Grain Production and Availability

1928-30 vs. 1938-40

	<u>1928-30</u>	<u>1938-40</u>	<u>% increase</u>
Population (mid-year)	153.4	167.0	+14%
Sown Area (all crops, million hectares)	119.4	140.3	+17%
Grain			
Million Tons	76.5	78.0	+ 2%
Sown (million ha.)	96.8	101.3	+ 5%
Yield (c/ha.)	7.9	7.7	- 3%
Kilograms per Capita	499.0	467.0	- 6%
All Crops (1928-30 = 100)	100.0	115.0	+15%

Source: Narodnoe khozyaistvo annual volumes 1956-1975, Sel'skoe khozyaistvo volumes 1960 and 1971, and Narodnoe khozyaistvo SSSR, 1922-1972.

Put in terms familiar to American consumers, this means that, if all waste was avoided and everyone received an equal share, each person would enjoy one pound of meat about every ten days. Not until 1952 was the output of meat per capita returned to the 1926-28 level.

Livestock

Published data on the livestock herds are more complete than those on meat output. As shown in Table 1.4, between 1928 and 1933 the cattle and horse population fell 50 percent while that of hogs, sheep, and goats declined 66 percent. The 1928 levels were not to be reached again until the mid-1950s.

TABLE 1.3 Collectivization and Meat Production

	<u>1913</u>	<u>1926-28</u>	<u>1937</u>	<u>1936-40</u>	<u>1952</u>
Population (millions)	159.2	148.8*	163.8	167.0	184.8
Meat (million metric tons)	5.0	4.2	3.0	4.0	5.2
% Decline 1926-28 to 1937			29.0%		
Kilograms per Capita	31.0	28.0	18.0	24.0	28.0
% Decline 1926-28 to 1937			36.0%		

* Although no official population figure is available for 1927 (the mid year of 1926-28) figures for 1926 and 1928 are published, so the 148.8 figure used here is half-way between the two other figures.

Source: See Table 1.2

TABLE 1.4 Livestock Losses During Collectivization and the War

	<u>1928</u>	<u>1933</u>	<u>% Loss</u>	<u>1941</u>	<u>1946</u>	<u>% Loss</u>
Cattle	66.8	33.5	50%	54.5	47.6	13%
Hogs	33.2	9.9	70%	27.5	19.6	61%
Sheep and Goats	114.6	37.3	67%	91.6	70.0	24%
Horses	36.1	17.3	52%	21.1	10.7	49%
Animal Units*	105.7	49.3	53%	77.8	58.6	24%

* Animal units are cattle = 0.8 (cows = 1.0), hogs = 0.18, sheep and goats = 0.09 (all current official Soviet weights), and horses = 1.0.

Source: See Table 1.2

Other Measures of What Might Have Been

Collectivization Losses vs. War Losses

The Soviet people suffered widespread death and destruction during World War II. The impact on food production was great. Ironically, however, that devastation provides a comparative measure which indicates that the self-inflicted losses of forced collectivization were even larger than the war losses. As documented in Table 1.4, the decline in livestock numbers from 1928 to 1933 was greater than the 1941 to 1946 decline. If the war period losses were measured from 1941 to 1945 - livestock statistics for 1945 are not available - the decline probably would appear greater. However, given the relatively slow rates at which livestock herds can be increased, the count in 1945 could not have been so low as to compare with that of the depleted herds resulting from forced collectivization. Indeed, when measured in equivalent animal units, the forced collectivization decline was double that suffered during the war years.

Extending NEP

Official measures of growth in the agricultural sector as expressed in percentage terms (1913 = 100) provided a means for comparing rates of growth during NEP with post-war rates of growth under full collectivization. Therefore, if 1945 is set at 100, the 1971 level of output will equal 362. When the same rate of growth that occurred during the NEP period of 1922-28 is applied, a figure of 381 is produced which, while larger, is not significantly greater than the 362. However, the NEP growth involved virtually no technological advance; whereas the bulk of the post-war growth has come from such new inputs as mineral fertilizer, the use of which increased six-fold from 1950 to 1971. In sum, had NEP policies along with technological advances been applied to the post-war period, production advances would have been significantly greater. (18)

A Canadian Comparison

Direct comparisons between Soviet and United States crop yields usually are not valid; nature smiles much less favorably on Soviet farmland than it does on the bulk of the sown area in the United States. As Soviet observers repeatedly, and correctly, observe, only 1.1 percent of Soviet farmland receives more than 700 mm. of moisture (27.6 in.) while over 60 percent of the farms in the United States receive more than that amount. (19)

Obviously, if grain farmers in both nations treated their fields equally, Soviet yields of grain per hectare would never achieve the level realized in the United States. However, such a qualification does not apply to Canadian and Soviet comparisons. As shown in Table 1.5, climate influences on Kazakhstan and Saskatchewan, Canada, both major wheat areas, are very similar. Yet, as shown in Table 1.6, between 1958 and 1962 Saskatchewan yields averaged some 32 percent higher than Kazakh yields; and by the 1970-74 period this gap had widened to 63 percent. It is to be noted that this occurred during a period of major growth in Soviet technological inputs in agriculture.

TABLE 1.5 Kazakhstan vs. Saskatchewan, Climate

	<u>Northern Kazakhstan</u>	<u>South-Central Saskatchewan</u>
Average Annual Precipitation	8-20 in.	12-18 in.
Number of Frost- Free Days	105-180	80-120
Average January Temperatures	-13 to -14 F.	-5 to -10 F.
Average July Temperatures	65 to 77 F.	60 to 70 F.

Sources: USSR Agriculture Atlas (Central Intelligence Agency, 1974); Future Crop Yields and Fertilization in the Soviet Union (U.S. Department of Agriculture, East European Branch Regional Analysis Division Economic Research Service, February 7, 1964), p. 11; and J. H. Richards and K. I. Fung, Atlas of Saskatchewan, (Saskatoon: University of Saskatchewan, 1969), pp. 106-07.

A Fair United States Comparison

While it is not fair to compare directly US and Soviet crop yields because of climate differences, comparisons of changing rates of labor

efficiency provide a meaningful measure as long as the productivity of the land is not an influencing factor. Data providing such measures are available for both nations from 1950 to 1969.

TABLE 1.6 Kazakhstan vs. Saskatchewan, Spring Wheat Yields
(Annual Averages in Centners per Hectare)

	<u>1958-62</u>	<u>1970-74</u>	<u>% increase</u>
Saskatchewan	10.7	16.3	52%
Kazakhstan (unadjusted)*	8.1	10.0	23%
Saskatchewan over Kazakhstan	32%	63%	

* Because of less rigorous grading standards (i. e. , allowable waste and moisture in the grain) and post harvest losses not accounted for in official Soviet statistics, if one were to compare directly Soviet and North American grain output and yields, the Soviet figures would have to be adjusted downward by more than 15%.

Sources: See Table 1.2 and Canada Yearbook, 1961-71 volumes and Quarterly Bulletin of Agricultural Statistics: Statistics Canada, July-September 1974 and 1975.

By itself, the data presented in Table 1.7 are a strong indicator of the relatively low rate of advance in farm labor efficiency under collectivization. In 1950 the Soviets employed 3.6 times as many workers per unit of land as did the United States, and this gap grew to 4.6 times as many by 1969. Also, the number of cattle per farm worker in the US in 1950 was 4.6 times greater and, by 1969, 8.2 times greater than in the USSR.

Two major qualifications need to be taken into account. First, while both nations increased their investments in agriculture significantly over the period, the rate of USSR advance had to be much greater than the rate of US advance. Without attempting to make a direct dollar-to-ruble comparison of investment advances, the fact can be documented by comparing the rates of increase of two key inputs over these years. Using the measures employed by each nation, mineral fertilizer availability advanced

700 percent in the USSR and only 33 percent in the US. Similarly, the number of all tractors on USSR farms, which ought to be directly reflected in labor savings, increased by over 300 percent as compared to an increase of only 50 percent in the US. As far as grain combines are concerned, the figures are 300 percent vs. a 25 percent increase. (20) Ironically, when Soviet farm managers were asked in 1970 whether they had ample hands, the almost universal answer was that they could use more help.

TABLE 1.7 USSR vs. US, 1950-1969
(Sown Hectares and Cattle Numbers per Farm Worker)

	1950		1969	
	<u>USSR</u>	<u>US</u>	<u>USSR</u>	<u>US</u>
Number of Farm				
Workers (millions)	33.6	9.9	32.1	4.3
USSR x US	3.3		6.8	
Sown Hectares per Worker	4.3	15.7	6.8	31.0
US x USSR		3.6		4.6
Head of Cattle per Worker	1.7	7.8	3.1	25.5
US x USSR		4.6		8.2

Sources: See Table 1.2 and Agricultural Statistics, 1960 and 1975 volumes (United States Department of Agriculture, 1961 and 1976).

The second qualification concerns a comparison of the sown areas during the period. These expanded significantly in the USSR, while they declined in the US in an attempt to reduce grain surpluses. Such a change had to work in favor of the USSR, but, as Table 1.7 indicates, the gap widened.

Private Plot Performance

Even Stalin realized that there was a limit to how far he could go in forcing peasants into collective farms. Thus, they were allowed to keep

their tiny private plots and limited numbers of livestock. Although there has been some relaxation in recent years, tight restrictions have been maintained while major inputs have been poured into the collectivized sector. Such moves have resulted in a declining proportion of the nation's food being produced by private effort. Nevertheless, according to official accounting, the 3 percent of the sown land under private care, which receives added fodder from the collective fields for private animals, still accounts in the mid-1970s for 27 percent of all agricultural products, 34 percent of the livestock products, and 19 percent of the produce from the fields. (21)

THE BALANCE SHEET

The first essential of Soviet Marxist-Leninism is maximization of central control over all aspects of human activity, and Soviet collectivization has been most successful in achieving this end. Ideologically, Soviet philosophers can argue successfully that communism, as they define it, is being advanced in the countryside. Whatever base may be used, productivity can be shown to have advanced significantly. The Soviet diet is better than it was under the Tsars, and so is the peasant's standard of living when measured in economic terms. Yet, the measures offered above surely indicate that the prices paid by the Soviet people have been enormous, and the bill is still not paid.

Happiness probably cannot be measured, and the Soviet leaders almost never allow cross-cultural surveys of such subjective elements as satisfaction with one's work or place of living. Yet, there are some gross indicators of the relative satisfaction of the Soviet peasants with their lot.

Earlier in this century American farmers led a relatively dreary life when compared with that of the urban population. In the post-World War I years farm-to-city migration was high and a popular song included the question, "How are you going to keep 'em down on the farm after they've seen Paree?" American farmers today have problems of a different kind; major human tragedy of rural America in the 1970s is that many farmers' sons who want to stay on the land are forced to leave because land and equipment costs make it prohibitive, in most cases, for more than one son to remain on the farm. In contrast, a major concern of the Soviet leadership is the drain of its youth from the countryside. At the 1970 International Conference of Agricultural Economists in Minsk, the Soviet colleagues repeatedly posed the question, "How can we keep our youth on the farms?"

Why should a Soviet youth with any ambition want to stay in farming? First of all, as in most of the world, including the United States, the spendable personal income of farmers is less than the national average. However,

unlike the United States or Canada where most of the arduous farm work is done by the farmer and the other members of his family, who are their own bosses, all of that bulk of the Soviet farmers who are engaged in working on the fields and in the barns are in the position of hired hands. And hired hands must perform their tedious, often strenuous, tasks as directed by the manager, who in the Soviet Union more often than not has been imported from outside the farm.

In spite of the fiction of collective ownership of the kolkhozy, the individual peasant workers are, for all practical purposes, rural wage earners bereft of any satisfaction which comes from making their own decisions. By way of verification of this fact, we have posed similar questions to collective farm managers in Mexico, Eastern Europe, and the Soviet Union. Inevitably the answers were the same: "No, the women responsible for the feeding and milking of the dairy herd have no meaningful choices in their work. They will feed the rations in the proportions and at the time and place determined by their bosses."

Even if a Soviet rural youth should want to get someplace in agriculture, the vast majority must leave the farm to receive advanced training which is increasingly required for farm managers and technicians. However, again and again articles in the Soviet press indicate that a disproportionate number of youths who receive specialized agricultural training never return to agriculture; they use what they can of their education to land city jobs.

The available evidence surely points to a conclusion that, when measured in terms of human preference or in terms of labor productivity and lost output potential, the collectivization experiment in the USSR must be found seriously wanting. To turn Lincoln Steffens' famed remark around: if the Soviet collectives represent the future, it is a future that doesn't work.

Even if a Soviet rural youth should want to get some place in agriculture, the vast majority must leave the farm to receive advanced training which is increasingly required for farm managers and technicians. However, again and again articles in the Soviet press indicate that a disproportionate number of youths who receive specialized agricultural training never return to agriculture; they use what they can of their education to land city jobs.

NOTES - Chapter 1

- (1) Lazar Volin, A Century of Russian Agriculture From Alexander II to Khrushchev, (Cambridge: Harvard University Press, 1970), p. 234.

- (2) History of the Communist Party of the Soviet Union (Bolsheviks), edited by a Commission of the C. C. of the C. P. S. U. (B), 1945, Moscow, p. 305.
- (3) J. Stalin, "The Right Danger in the Communist Party of the Soviet Union," Leninism: Selected Writings (New York: 1942), pp. 77-133. The emphasis has been added by the present author.
- (4) See, for example, Rudolf Schlesinger, The Spirit of Post-War Russia (London: 1947), p. 14.
- (5) David Ryabanov is credited with originating this description of NEP. See Merle Fainsod, How Russia is Ruled, (Cambridge: Harvard University Press, 1953), p. 97.
- (6) Several years ago we tried to read everything Lenin had written on peasants and agriculture and found him to be wholly consistent on this point. See Roy D. Laird, "Lenin, Peasants and the Agrarian Reform," in Lenin and Leninism, ed. Bernard W. Eissenstat (Lexington: Lexington Books, 1971), pp. 173-81.
- (7) See the excellent discussion of this debate and the problems involved as presented by Alexander Erlic, "Stalin's Views in Soviet Economic Development," in Continuity and Change in Russian and Soviet Thought, ed. Ernest J. Simons (Cambridge: 1955), pp. 81-99.
- (8) J. Stalin, Leninism, II, 108-09, as cited by Volin, op. cit., p. 199.
- (9) J. Stalin, Sochineniia, XI, 167, as cited by Volin, op. cit., p. 200.
- (10) See Table 23 in Volin, op. cit., p. 232.
- (11) See Roy D. Laird, Darwin E. Sharp, and Ruth Sturtevant, The Rise and Fall of the MTS as an Instrument of Soviet Rule, The University of Kansas Publications Governmental Research Series No. 22, Lawrence, Kansas, 1960, pp. 15 and 16.
- (12) Ibid., p. 24.
- (13) "Report at the Seventh Soviet Congress of the Moscow Province," Ekonomicheskaya zhizn, April 14, 1925, as cited by Volin, op. cit., p. 177.

- (14) Ibid. , pp. 233-34.
- (15) Joseph W. Willett, Unpublished speech at the Canadian Agricultural Economic Society, August 6, 1974.
- (16) N. S. Khrushchev, Pravda, February 15, 1956, pp. 1-11.
- (17) Derived from Narodnoe khozyaistvo annual volumes 1956-75, Sel'skoe khozyaistvo volumes 1960 and 1971, and Narodnoe khozyaistvo SSSR 1922-72.
- (18) Ibid.
- (19) "Bread and Politics," Literaturnaya gazeta (February 23, 1977): pp. 2-14.
- (20) See Note 17 and US Department of Agriculture, Agricultural Statistics 1960 and 1975 volumes published in 1961 and 1976.
- (21) A. M. Yemel'yanov, "Means and Mechanism for Implementing the Party's Economic Strategy in Agriculture," Vestnik moskovskogo universiteta, No. 4 (July-August, 1976): pp. 3-16.

2

The Costly Experiment: Collectivization of Romanian Agriculture

Trond Gilberg

INTRODUCTION

The Great Transformation: The Establishment of Communist-Dominated Regimes in Eastern Europe

The establishment of communist regimes in Eastern Europe in the aftermath of World War II ushered in fundamental changes in the political and socioeconomic life of the countries in the area. In broad terms, the changes effected may be characterized as follows:

Political. Existing political structures and groups were destroyed and the political monopoly of the local Communist Party was established. Rapid expansion of the organizational infrastructure of the Party and its auxiliaries provided the necessary framework for the societal transformation which was contemplated. The destruction of remaining "bourgeois" political structures proceeded apace.

Socioeconomic. From the very beginning, the new Communist rulers were bent upon rapid socioeconomic transformation. This meant, first and foremost, strenuous efforts at rapid industrialization; it also meant forced collectivization of agriculture. This economic development in turn produced fundamental social changes, in that new classes and social strata were created through the developmental process, while others disappeared or dwindled into insignificance.

Ideological applications. The political and socioeconomic programs launched and sustained by the new Communist rulers were a mixture of pragmatism and applied ideology. In the early stages, roughly in the period

between 1944-45 and 1947-48, programs were executed in a moderate fashion, and there were considerable variations among the countries of Eastern Europe in this respect. During the period of Stalinism, however, from 1948 to 1953, all the countries of the area experienced the forced application of the Soviet model upon their societies. It is in this period that massive and rapid industrialization and forced collectivization of agriculture was introduced. (1)

The Changing Criteria of Performance under Stalinism

Traditionally, economic activity under both liberalism and authoritarianism had enjoyed a certain amount of autonomy from the political realm. Agriculture had developed in a complex relationship with nature, whereby soil conditions, climate, and the availability of manpower, machinery, and markets had interacted to determine production; the state had, of course, intervened to help with subsidies and to promote certain kinds of crops, but, on the whole, a considerable amount of individual and local initiative remained possible. Similarly, industrial activity developed in response to local as well as national conditions, although in this sphere there was a long tradition of rather forceful state initiative in Eastern Europe. (2)

The application of local initiative in agricultural pursuits responded essentially to the existence of a set of performance criteria which demanded some flexibility in production and distribution. First of all, marketability and profitability of crops and produce had a determining effect upon production. While the state would intervene to buy up strategic crops or to enforce the continued production of commodities that might not be profitable in the free market, this intervention was limited and often deferred to a modified system of market indicators.

Secondly, and at times in contradiction to the first criterion of marketability and profits, a performance criterion was the ability of agriculture to absorb manpower. Since most of the countries of Eastern Europe were overwhelmingly rural and had high birthrates, the added manpower entering the labor market every year could only be absorbed by industry, emigration, or labor-intensive agriculture. Because of this situation, productivity per agricultural worker was low; the forms of production emphasized extensive rather than intensive methods, and the rate of mechanization was considerably slowed down by the existence of abundant and cheap labor. On the other hand, extensive agriculture of the labor-intensive kind served the crucial socio-economic and political functions of providing an economic outlet for the energies of "the teeming masses."

Thirdly, the agricultural economies of Eastern Europe were not particularly oriented toward the domestic consumption market, but rather produced export crops for the increasingly industrialized states of Western and Central Europe. This resulted in considerable deficiencies in the domestic diet and a serious imbalance between industrial crops and vegetable and fruit farming. Through various interventionist tactics, the state maintained this export-oriented agriculture. However, there was always the possibility that the peasants could augment their income or improve their diet through the maintenance of vegetable gardens and orchards.

Traditional agriculture in Eastern Europe, then, functioned in a complex interaction of internal and external conditions and factors which produced economic activity, social relationships, and political behavior. Independent and dependent variables and criteria functioned as a result of lengthy historical developments, while still providing room for modification and change, albeit slow change. (3)

The imposition of communism in Eastern Europe ushered in a period of drastic rearrangement in the criteria of production and basic changes in the relationship of independent and dependent variables of agricultural activity. There was, first of all, a significant reduction in the number of criteria employed to measure performance. While pre-communist agriculture was measured on the basis of its ability to make a profit, the new political system denounced profits as a nefarious capitalistic invention which would be abolished under socialism. While the agricultural sector had been a depository for excess manpower, the new communist elites and their planners announced their intention to reduce agriculture to a residual category and to use the pool of rural labor as the mainstay of the industrialization process. While the pre-communist regimes had allowed a certain amount of local and personal initiative in agriculture, thus ensuring a minimum of satisfaction for local consumption needs, the new order envisaged collectivization and "depersonalization" as a transitional form in the move towards socialism and communism; when the goal was reached, agriculture would become a mere industrial pursuit like any other economic activity.

Above all, communist agriculture meant the imposition of ideological rather than instrumental criteria for decision-making and performance. While, by definition, cooperative farms were superior to private farming, Marxism-Leninism postulated that state farms were inherently the highest form of agricultural organization. The performance criteria of sellable crops and individual productivity became merely secondary indicators, which could in no way deter the regime from its determination to perpetrate a fundamental organizational transformation in the countryside, no matter what the costs. A good farm supervisor was a good organizer who could competently and quickly effect the transformation to collectivization and the organization of state farms. Production, in the short run, was secondary.

This is not to suggest that the communist agricultural planners were not concerned with production; clearly they were concerned about this aspect, but they were convinced that, in the long run, the superiority of collectivized and state agriculture would manifest itself in production. In the meantime, they did not want to be confused by facts in the form of production statistics and headlines.

A second major implication of communist decision-making in agriculture was the application of the Soviet model in practical terms everywhere. Marxism-Leninism provided general guidelines for the process of collectivization, but Moscow's policies of the 1930s provided hard evidence of the actual process. Thus, the Soviet practical model of agricultural reorganization became the real independent variable in East European decision-making during the Stalinist era.

In line with the Soviet emphasis on agriculture as a residual economic category in terms of investment and general regime commitment, production was measured in minimal rather than maximal terms. There had to be at least enough agricultural produce to feed the cities and the growing number of industrial proletarians, but additional efforts were not made to create abundance, especially if this required the reduction of industrial or military budgets. The East European communist regimes, in true Soviet fashion, relied upon forced acquisitions and organizational tinkering to solve the production problem. There is little wonder that the agricultural work force was depleted more rapidly than the industrial sector could absorb the rural migrants. (4)

The overview presented above is not meant to indicate complete uniformity in agricultural policy in Eastern Europe. There are many exceptions and some variations from country to country. Nevertheless, the era of Stalinism did provide a massive experiment in cross-national synchronization of agricultural policies. The differences between countries arose not out of different philosophies of political execution, but rather out of different degrees and speed of application of the same basic principles.

Post-Stalinism: Return to Relative Diversity and the Re-Establishment of Multiple Performance Criteria.

It is now a commonplace in the specialized literature on Eastern Europe that post-Stalinism meant "decompression"; the enforcement of the Soviet model in the political and socioeconomic realm was modified, and individualized "paths to socialism" were developed. This ushered in considerable differences in the application of agricultural policy, ranging from virtual abandonment of collectivization (e. g., Poland) to the completion of

this process in Romania, Bulgaria, and the German Democratic Republic. There was also a return to multiple criteria of performance, albeit in a more restricted form than prior to the communist take-over. There was a greater willingness to utilize increasing knowledge about soil conditions, erosion, and other information as a basis for sowing and planting, and this was coupled with a greater ability to supply needed fertilizer and machinery for the actual process of production. The increase in the number of trained cadres in agriculture (albeit much slower than the production of specialists in the hard and applied sciences) permitted the gradual replacement of Party apparatchiks as agricultural decision-makers and planners. Above all, the greater emphasis on multiple criteria for production and performance stemmed from the high priority endeavors of the East European regimes in other economic fields. The processes of industrialization and urbanization required greater agricultural output and the increasing emphasis on a better life, now endorsed by elites and demanded by the population, forced more attention to quality and availability of produce. (5) Despite this trend, agriculture remains the Achilles heel of the East European economies and political criteria continue to hold center stage in the decision-making process, as evidenced by the fact that no political or economic leader in Eastern Europe has dared suggest the abandonment of the principle of collectivization of agriculture. The political commitment to this form remains so firm that, barring a major catastrophe such as a generalized war, collectivized agriculture may be considered as a socioeconomic and political given in Eastern Europe, at least for the foreseeable future. This analysis will proceed from the vantage point of considering collective and state farms as a fixed phenomenon in the East European systems.

PRE-COMMUNIST ROMANIA AND THE GEOGRAPHICAL AND SOCIOECONOMIC SETTING

The Physical Environment: Geography and Climate*

Romania, a medium-sized country by general European standards, is one of the larger states in Eastern Europe; its territory covers 237,500 square kilometers in the southeastern part of the continent. The total dis-

* It should be pointed out here that Romania has undergone several border changes during the last century. Therefore, the records and descriptions utilized in this examination may be somewhat misleading. The statistics have controlled for this variation whenever possible.

tance from east to west at the extremities is 500 km., while the north-south dimension is 375 km. Romania, which has access to the Black Sea, borders on the Soviet Union, Bulgaria, Yugoslavia, and Hungary.

A considerable part of Romanian territory consists of a large plain which stretches from the mountain areas in the southwest in a wide arch towards the east and north until reaching the Prut River, now the border with the Soviet Union. The country south of the Danube is also primarily flat; that great river empties into the Danube Delta, a large area of marshes and swamplands with innumerable inlets and bays. West and north of the plain rises the massif of the Carpathians, which dominate much of Transylvania. North of the mountain ranges the topography once again flattens out and becomes part of the greater plains stretching into Hungary and known there as the Alföld.

The climate is essentially continental, with warm summers (hot in the south-central areas) and relatively cold winters, with the Black Sea coast as the main exception. Soil conditions are favorable for agriculture in much of Romania. Indeed, this country was for a long time one of the chief exporters of cereal grains in the world. The main grain-producing area is in the lowlands in the south and east, in the Dobrudja and along the Black Sea coast. Wine making, and fruit and vegetable growing constitute important economic activities, and Transylvania is known for its dairy industry and cattle raising. Certain areas, such as the Baragan Steppe, are rather inhospitable to agricultural pursuits and have only recently been brought under cultivation.

Agricultural Production in Pre-War Romania

As pointed out by David Mitrany and others, and upheld by official statistics, Romanian agricultural production, although varied, tended to be heavily concentrated in the field of grains and cereals which were raised for export. The low level of mechanization in the agricultural sector ensured that the yield per hectare was low - indeed, among the lowest in all of Europe. However, thanks to the heavy use of agricultural labor and extensive methods of cultivation, Romanian exports were significant and provided the bulk of foreign revenue. Tables 2.1-2.4 explore various aspects of this economic sector prior to World War II. They show the extent to which Romanian agriculture was dominated by cereal grain production at the expense of so-called industrial crops, which could lend themselves to further refinement and thus to higher income and competitiveness on the world market. The Romanian export of agricultural products was restricted primarily to cereal grains in bulk.

TABLE 2.1 Production on Agricultural Land in Romania, 1930s

<u>Year</u>	<u>Category of Product</u>	<u>Total (in hectares)</u>	<u>Percent of Total</u>
1938	Cultivated Land	9.420.000	100
	Cereal Grains	8.193.900	87.0
	Wheat	2.830.300	30.0
	Corn	3.877.800	41.2
	Leguminous Plants	109.000	1.1
	"Technical Plants" (total)	242.400	2.6
	Plants for Textiles	54.700	0.6
	Plants for Oil Extraction	126.800	1.4
	Sunflowers	66.800	0.7
	Other Industrial Plants	60.900	0.6
	Sugar Beets	32.600	0.7
	Potatoes, Vegetables, and Melons	238.800	2.6
	Potatoes	135.100	1.4
	Fodder Plants	635.500	6.7

Source: Anuarul Statistic al Republicii Socialiste Romania 1970,
 Republica Socialista Reomania, Directia Centrala De Statistica, p. 306.

TABLE 2.2 Total Agricultural Production of Selected Commodities, 1938-75
(Thousands of Tons and Percent of Total Production)

	<u>1934-38</u>	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
Wheat	2,629.8	2,219.1	3,006.4	32,149.5	5,937.0	3,398.6	4,912.2
Rye	165.1	182.4	213.6	103.2	124.9		
Barley	601.8	324.9	444.7	405.0	485.4	513.5	951.9
Oats	528.5	282.9	373.9	284.3	124.0	116.8	56.9
Corn	4,055.5	2,101.0	5,876.7	5,530.9	5,877.0	6,535.5	9,240.7
Rice	1.0	36.0	34.8	49.3	45.8	65.2	68.5
Soybeans	11.6	5.6	14.5	12.0	2.7	90.5	212.8
Sunflowers	48.4	213.6	277.5	521.7	564.0	769.6	728.1
Sugar Beets	392.5	632.8	2,000.0	3,398.9	3,275.2	2,921.3	4,905.1
Potatoes	1,317.8	1,601.3	2,607.8	3,009.3	2,194.7	2,064.2	2,715.9
Vegetables	(No figure)	1,126.5	1,570.5	1,830.6	1,654.5	2,004.0	2,517.7

Note: 1934-1938 - average per year for the period.

Source: Anuarul Statistic 1970, op. cit., pp. 312-14, and Anuarul Statistic 1976, pp. 174-79.

TABLE 2.3 Animal Husbandry in Romania, 1938-75
(Thousands of Heads)

	<u>1938</u>	<u>1951</u>	<u>1956</u>	<u>1961</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
Cattle	3,653	4,502	4,800	4,530	4,756	5,035	5,983
Pigs	2,761	2,197	4,950	4,300	6,034	5,972	8,566
Sheep	10,087	10,222	11,120	11,500	12,734	13,836	13,929
Goats	364	498	598	404	744	565	445
Horses	1,581	1,002	1,150	1,000	689	686	---
Fowl	27,325	17,610	33,000	38,000	39,910	53,894	78,626
Bees (thousands of families)	466	459	583	653	824	976	---

Source: Anuarul Statistic 1970, op. cit., pp. 412-14, and Anuarul Statistic 1976, op. cit., pp. 241-42.

TABLE 2.4 Animal Production, 1938-75

	<u>1938</u>	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
Meat (000's omitted) (live weight in tons)	763	644	886	969	1,116	1,393	2,063
Milk (000's omitted) (in hecto- litres)	21,575	22,930	25,726	32,420	32,518	37,932	44,421
Wool (in tons)	15,130	15,600	20,710	21,850	25,410	29,725	31,532
Eggs (millions)	1,354	1,100	1,546	2,355	2,630	3,537	5,412

Source: Anuarul Statistic 1970, op. cit., pp. 430-31, and Anuarul Statistic 1976, op. cit., pp. 252-53.

Comparative figures show that productivity per hectare and per worker was very low in Romanian agriculture despite the essentially favorable climate and soil conditions. Part of this low productivity stemmed from the meager mechanical resources available; in 1938, there were only 4,049 tractors and other major agricultural machines in use in the entire country. (6) However, a more important reason for this low productivity was the inequitable system of land distribution that prevailed in Romania.

The Social and Political Order of Pre-Communist Romania

The statistics presented above represent the tangible results of an economic system that functioned within the social and political order of Romania for decades after the establishment of national independence in 1877. The social order was fundamentally unjust, with a small socioeconomic and political oligarchy ruling the vast masses of the peasantry and the budding proletariat with indifference, occasional cruelty, and exploitation. The political order was marked by tentative steps toward a representative democracy which faltered on the obstacles of corruption, vote-buying, and low public participation in the affairs of state. The central administration was rather corrupt and, in any case, incompetent, a state of affairs not conducive to sterling economic performance. The problems of low productivity and overemphasis on cereal grains thus interacted with the dilemmas of the social and political order in a vicious circle of dependent and independent variables: oligarchy, autocracy, corruption and undermanagement tended to perpetuate the underdeveloped state of Romanian agriculture; and the low production levels and lack of funds doomed the regime to proceed cautiously, if at all, with social and economic reform. There was progress, but it was halting and unsteady. The vast masses of the predominantly agrarian population remained in deep poverty, illiteracy, and general underdevelopment. Some of these aspects of the social and political order are illustrated by Table 2.5, which also shows that Romania exhibited typical aspects of classical underdevelopment in terms of population structure. The birthrates were higher than in Romania's Balkan neighbors, Bulgaria and Yugoslavia; and the "control country," Denmark, representing a highly-developed (albeit primarily agrarian) country in Western Europe, predictably showed fewer births and fewer deaths than any of the East European countries examined. The same picture also emerges from an examination of infant mortality; deaths under one year per 1,000 inhabitants stood at 176 in Romania in 1939, while the figure was 138 in Bulgaria and 58 in Denmark. In 1938, the infant mortality rate was 144 in Yugoslavia. (7)

TABLE 2.5 Conditions of Life in Romania up to World War II

Births per 1,000 Inhabitants								
	<u>1911-13</u>	<u>1921-25</u>	<u>1926-30</u>	<u>1931-35</u>	<u>1936</u>	<u>1937</u>	<u>1938</u>	<u>1939</u>
Romania	42.6	37.9	35.2	32.8	31.5	30.8	29.6	28.3
Yugoslavia		35.0	34.2	31.8	28.9	27.9	26.7	
Bulgaria	35.8	39.0	33.1	29.3	25.9	24.3	22.8	21.4
Denmark	26.3	22.3	19.4	17.7	17.8	18.0	18.1	17.8

Deaths per 1,000 Inhabitants

		<u>1921-25</u>	<u>1926-30</u>	<u>1931-35</u>	<u>1936</u>	<u>1937</u>	<u>1938</u>	<u>1939</u>
	<u>1911-13</u>							
Romania	24.7	23.0	21.2	20.6	19.8	19.3	19.2	18.6
Yugoslavia		20.2	20.0	17.9	16.0	15.9	15.6	
Bulgaria	23.7	20.8	17.9	15.5	14.3	13.6	13.7	13.4
Denmark	13.0	11.3	11.1	10.9	11.0	10.8	10.3	10.1

Source: Statistical Yearbook of the League of Nations (Geneva, League of Nations, Economic Intelligence Service, 1940), pp. 37-39.

The figures on population, so clearly indicative of an underdeveloped country by European standards, revealed a severely unbalanced economy incapable of sustaining a higher level of life. In the economic sector, this general problem of underdevelopment was exacerbated by one of the most inequitable systems of land distribution on the Continent. Until 1864 peasants on Romanian territory (the principalities) were subjected to a form of servitude. The reform of that year set many free and provided them with some land. According to Mitraný, 71,912 Moldavian peasants, each possessing four oxen, received over 413,000 hectares of land; 202,075 with two oxen received 882,737 hectares; 134,000 with one cow were awarded 385,000 hectares; and the poorest 59,721, each possessing only a house and a garden, received 85,610 hectares. (8) Another land reform in 1889 made it possible for some peasants to purchase more land; 106,714 of them purchased a total of 546,593 hectares in lots of 5, 10, and 25 hectares, with the bulk of the land sold in the 5-hectare category. (9) The main land reform of 1921 produced the following distribution among social categories in terms of land holding:

Property up to 10 hectares (prior to reform)	3,732,195
(added during reform)	<u>2,776,401</u>
Total	6,508,596 (81.43% of total area)
Property of 10-100 hectares	860,953 (10.80%)
Property above 100 hectares (from which were taken 2,776,401 hectares) (10)	621,450 (7.77%)

In Bessarabia, property up to 10 hectares constituted 87 percent of the total arable area after the reform; 10 to 100-hectare properties constituted 4.33%; and estates over 100 hectares made up roughly 9 percent. (11) After land reform in Bukovina, fully 92.5 percent of the total area was held by peasants in "small property," while large estates constituted only 7.5 percent. (12) In Transylvania, property of less than 10 hectares constituted 56.5 percent of all land after the reform; 29 percent of the land fell in the category of holdings between 10 and 100 hectares; and estates of over 100 hectares made up the remaining 14.5 percent of the land. (13)

However, Table 2.6 shows that many inequities remained even after the reform.

Unfair land distribution contributed significantly to social and political unrest in Romania during the twentieth century. The reforms, which produced considerable improvements, could not erase this source of political trouble in the countryside. Of greater importance, perhaps, was the problem of mismanagement and outright exploitation of the masses of peasants. The governments and state administrations were simply unequal to the task of implementing meaningful agrarian reforms on the necessary scale; and the low level of political penetration in the Romanian countryside ensured the

TABLE 2. 6 The Distribution of Land Property (Arable) in 1927

Provinces	<u>-5 Hectares</u>		<u>5-10 Hectares</u>		<u>10-50 Hectares</u>		<u>50-250 Hectares</u>		<u>Above 250 Hectares</u>		<u>Total</u>
	No. of Owners	Total Hectares	No. of Owners	Total Hectares	No. of Owners	Total Hectares	No. of Owners	Total Hectares	No. of Owners	Total Hectares	Total Hectares
1. Old Kingdom	1,683,591	3,489,754	189,184	1,269,600	45,454	820,608	10,861	882,996	1,652	851,615	7,314,572
2. Transylvania	937,554	1,567,681	106,144	713,313	55,376	797,720	4,540	362,812	709	294,964	3,736,490
3. Bessarabia	412,343	1,004,541	136,012	908,161	46,655	748,454	2,378	218,944	194	173,380	3,023,481
4. Bukovina	197,975	219,018	4,375	28,779	1,375	25,909	343	40,507	42	15,713	329,926
Rumania	3,231,463	6,280,994	435,715	2,919,853	148,860	2,392,691	18,122	1,505,259	2,597	1,305,672	14,404,469
<u>Percentages</u>											
1. . . .	87.20	47.59	9.80	17.22	2.35	11.07	0.56	12.62	0.09	11.50	100
2. . . .	84.87	41.96	9.62	19.09	5.02	21.36	0.42	9.71	0.07	7.88	100
3. . . .	69.06	33.23	22.73	30.04	7.78	24.75	0.40	7.24	0.03	4.74	100
4. . . .	97.04	66.37	2.11	8.72	0.67	7.86	0.16	12.28	0.02	4.77	100
Rumania	87.54	47.29	10.16	18.77	3.96	16.26	0.39	10.46	0.05	7.22	100

Note: From the figures of the fiscal census of the Ministry of Finance.

1927	{ Large property . . 12.09% of the arable land { Small property . . 87.91% of the arable land	1925	{ Large property . . 12.44% of the arable land { Small property . . 87.56% of the arable land
1926	{ Large property . . 13.30% of the arable land { Small property . . 86.70% of the arable land (Large property = above 100 ha.)	1924	{ Large property . . 12.42% of the arable land { Small property . . 87.58% of the arable land (Small property = up to 100 ha.)

Note: Figures of the Ministry of Agriculture

Source: David Mitran, The Land and the Peasant in Rumania, op. cit., p. 227.

continuation of a situation wherein the central political order remained remote and often was perceived as exploitative and a defender of the status quo. A wide chasm developed between the political and socioeconomic elite on the one hand, and the general population on the other. This chasm could not be bridged by half-hearted reforms coupled with lax enforcement which permitted the continuation and even exacerbation of corruption and exploitation in the countryside. The fundamental change in the agrarian order, which was to transform all aspects of societal life in the villages and the fields, had to await military defeat in World War II and an imposed revolution from above.

THE PERIOD OF COMMUNIST RULE: INDEPENDENT VARIABLES

The Establishment of Communist Political Hegemony and the Beginnings of Collectivization

The great rural transformation of Romania was possible only because of the enforced change of political fortunes in the country. The entry of the Red Army in the summer of 1944 and the sudden switch of Romania over to the Allied side profoundly altered the political balance and propelled the tiny Communist Party (PCR) into the mainstream of power. Through an integrated set of steps, which have been described in great detail elsewhere, (14) the PCR succeeded in gaining complete control over the political system by mid to late 1947. From that time on, the main independent variable in agricultural policy in Romania became the political and socioeconomic programs of the PCR and its auxiliary organizations. Among the most important of these independent variables were the following:

- a) The establishment of a political infrastructure capable of supervising the planned socioeconomic revolution in Romania;
- b) The formalization of a development program which deliberately relegated agriculture to a third-class category in terms of priority and essentially considered this economic sector as a necessary evil, a "residual category" which must be retained as a base from which to launch a rapid industrialization drive;
- c) The creation of plans for the administrative execution of the development goals, (described under b above) fundamental to which was the resolution to effect the collectivization of agriculture; and
- d) finally, the establishment of administrative and coercive organs to supervise and control the execution of the new agrarian program. (15)

These major independent variables, predicated upon the ideological tenets of Marxism-Leninism and the fundamental political beliefs of the

chief decision-makers of the new regime, have essentially remained intact in Romania to the present day. This is not to say that there have been no changes, no adjustments; as the various programs were put into effect, the feed-back process manifested itself in the form of low crops, bottlenecks of investment and supply, and manpower problems. These in turn became elements of input into revised plans and strategies. External factors, such as the considerable political unrest among the ethnic minorities of the country in the wake of the Hungarian Revolution of 1956, necessitated certain adjustments in the agricultural programs of the PCR. Despite such factors, however, the regime remains committed to the principles outlined above, as evidenced by the forced completion of collectivization in 1962. Political will, then, became the chief independent variable of the collectivization program.

The Collectivization Program: Major Political and Socioeconomic Aspects

The collectivization process was preceded by an agrarian reform promulgated by the coalition government on March 22, 1945. In this reform, all land holdings over 50 hectares and land that had not been cultivated for the last seven years, except in the cases of lots of 10 hectares or less, were confiscated. Furthermore, the state confiscated all land belonging to absentee landlords, "enemies of the people," and "war criminals." This process established a state-controlled land fund of 1,468,000 hectares. At the same time, the agricultural implements of those whose land had been expropriated also were confiscated. In 1948 and 1949, royal properties and estates of up to 50 hectares were expropriated. (16)

The land acquired through the several expropriations was distributed to the lower ranks of the peasantry, especially to those without land or with holdings of under 5 hectares. All in all, the reforms distributed about 900,000 hectares to those who either had no land or small holdings. (17)

Together with the distribution of land, the communist-dominated regime emphasized the establishment of collective and state farms. Originally, membership in these farms was voluntary; within a short time, however, the state was to begin forced collectivization.

The decision to launch all-out collectivization was made at a plenum of the PCR Central Committee in March, 1949. While the principle of voluntary membership was still upheld, the regime of Gheorghe Gheorghiu-Dej attempted to make the collective farms more palatable by giving them favorable tax rates and considerable investment funds. (18)

As the process of collectivization proceeded, the principle of voluntary membership became little more than a mere pious declaration. The PCR increasingly used force to ensure virtually the full collectivization of Romanian agriculture, a process which was declared completed by 1962. The process of collectivization is well illustrated by Table 2.7. In addition to the categories named in Table 2.7, there were also the so-called "agricultural associations." These were more loosely-knit cooperatives that occupied 2.8 percent of the land in 1955, 21 percent in 1960, 14.1 percent in 1961, 3 percent in 1962, and 3 percent in 1963. The expansion of socialized agriculture can also be measured by figures on employment, as shown in Table 2.8.

While the program of forced collectivization succeeded in establishing an organized, full-fledged socialized agriculture by 1962, the PCR continued its ambitious program to expand its own organization and that of auxiliary groups in the countryside in order to enhance the process of collectivizations, indoctrination, political socialization, and control. This process was fraught with serious drawbacks and mistakes; PCR never succeeded in establishing itself among the peasantry, and membership figures in the countryside remained low. In 1960 only 34 percent of the PCR membership came from the peasantry, although well over 50 percent of the employed population made a living in agriculture; this problem of underenrollment of peasants was serious in the middle and higher echelons of the PCR. (19) In a similar vein, there were problems in peasant participation in the many auxiliary organizations of the PCR; and in the youth organization (UTM-Uniunea Tineretului Muncitoresc, later renamed UTC-Uniunea Tineretului Comunist) the peasant component was similarly low. (20) Despite these serious problems, the PCR had succeeded in establishing itself as the unquestioned leading force in political and economic terms in the Romanian countryside. It had destroyed the vestiges of politically-independent organizations among the peasantry, and it had succeeded in establishing organizational forms which ensured its full control over investment, production, and the disposition of produce. From 1962 on, the PCR could move to consolidate its position in the countryside. Tables 2.7 and 2.9 show the distribution of land among economic units in the period between 1963 and 1976 and the manpower distribution of Romanian agriculture in the same period.

The essential organizational features which emerged as a result of collectivization remained until the mid-1970s. The numbers of collective farms, state farms, and individual holdings remained fairly steady, although there was a modest increase in the amount of land tilled by collective farm members. On the other hand, there was a steady decline in the number of individuals employed in agriculture; this was a direct result of the modernization process, which furthered urbanization and the steady

TABLE 2.7 Land Distribution in Romania, 1950-76
(In Thousands of Hectares per Economic Unit)

	<u>Total Hectares</u>	<u>State Units</u>		<u>Collective Farms</u>		<u>Personal Plots</u>		<u>Individual Farms</u>		
1950	14,324.0	(100%)	3,085.6	(21.6%)	288.9	(2.0%)	11.8	(0.1%)	10,949.5	(76.4%)
1955	14,112.3	(100%)	3,597.6	(25.5%)	905.8	(6.4%)	35.3	(0.2%)	9,213.5	(65.3%)
1960	14,546.6	(100%)	4,270.4	(29.4%)	4,580.2	(31.5%)	337.3	(2.3%)	2,630.6	(18.1%)
1961	14,600.5	(100%)	4,312.7	(29.5%)	5,973.3	(40.9%)	525.7	(3.6%)	2,256.2	(15.5%)
1962	14,688.0	(100%)	4,284.5	(29.2%)	9,084.7	(61.8%)	928.8	(6.3%)	885.7	(6.0%)
1963	14,723.5	(100%)	4,405.9	(29.9%)	8,995.5	(61.2%)	948.6	(6.5%)	872.0	(5.9%)
1965	14,791.4	(100%)	4,461.8	(30.2%)	8,993.9	(60.8%)	967.5	(6.5%)	1,272.9	(8.6%)
1970	14,930.3	(100%)	4,491.7	(30.1%)	9,033.1	(60.5%)	982.6	(6.6%)	1,380.1	(9.2%)
1975	14,946.4	(100%)	4,492.1	(30.1%)	9,047.2	(60.5%)	973.0	(6.5%)	1,407.1	(9.4%)

* Including personal plots

+ Included in collective farms

Source: Anuarul Statistic 1970, op. cit., 250-52, and Anuarul Statistic 1976, op. cit., p. 147.

TABLE 2.8 Employment in Socialist Agriculture, 1950-63

	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
State Farms (figures in thousands of employees)	161.8*	155.2*	224.0*	240.5*	258.7*	276.4*
Collective Farms (thousands of families)	67.7	183.2	1,420.1	2,051.0	3,294.8	3,345.8
Machine-Tractor Stations (total no. of employees principally employed in agriculture)	17,508	35,292	44,502	54,161	64,155	70,189

* Workers and functionaries

Source: Annuarul Statistic 1970, op. cit., pp. 274-76; 292-94; 284-86.

TABLE 2.9 Employment in Socialist Agriculture, 1963-76

	<u>1965</u>	<u>1970</u>	<u>1975</u>
State Farms (figures in thousands of employees)	301.3*	292.3*	251.7*
Collective Farms (thousands of families)	3,409.1	3,454.2	3,456.8 (1974-end of year)
Machine-Tractor Stations (total no. of employees principally employed in agriculture)	85,667	96,118	126,383

* Workers and functionaries

Source: Annuarul Statistic 1970, op. cit., pp. 274-75, and Annuarul Statistic 1976, op. cit., p. 164.

increase of the industrial working class. The 1956 census listed the total agricultural population at 12 million, or 68.7 percent of the total population; by 1966 this figure was 11.8 million, representing 61.8 percent of the population; and by 1975 the ratio of urban to rural population was 43.2 percent to 56.8 percent or 9.2 million and 12 million, respectively. (21) This considerable population transfer was both a dependent variable in the sense that it resulted from the political decision of rapid industrialization and urbanization, and an independent variable in that it reduced one of the major production components in agriculture and forced increased emphasis on mechanization to substitute for the reduced labor force.

Frequent reorganizations to ensure better control and better support were another major element of change in the Romanian countryside. This tendency is well illustrated by Table 2.10 which shows the average size of agricultural units in Romania in the period between 1950 and 1975. The trend was essentially towards larger units during much of the period, a tendency which is quite understandable until 1962, because individually owned land was constantly being added to the collectives or state-owned land pools. After 1962, the trend is clearly the result of almost continuous reorganizations which were designed to enhance both political and socio-economic control as well as productivity. As such, the frequent reorganizations reflect the predilection to organizational "tinkering" with the system, so often resorted to as a substitute for more fundamental reform.

By the mid-1970s Romanian agriculture had settled into organizational forms which essentially had been established in 1962 upon completion of the process of collectivization. No dramatic initiatives had been undertaken since the early 1960s, and the economic reforms which had been undertaken in all of Eastern Europe during the 1960s had been very cautiously applied in Romania. (22) On the other hand, collectivization had been applied forcefully and rapidly; the entire process was completed in approximately thirteen years between 1949 and 1962. Furthermore, the reorganization had been thorough, involving the transfer of titles, as well as implements and animals to the collectives. Only those agricultural areas that were considered totally unsuitable for large-scale cultivation, primarily mountain regions and some pasture land, had been left in the hands of private proprietors. (23) Despite considerable flexibility at the political center which was reflected in frequent organizational changes, the nature of the system remained essentially rigid and highly centralized. It is not an exaggeration to state that the process of collectivization represented a political, economic, and social revolution in the Romanian countryside.

TABLE 2.10 Size of Agricultural Units in Romania, 1950-75

Year	State Farms			Collective Farms		
	Total Ha.	No. of Units	Average Size of Unit	Total Ha.	No. of Units	Average Size of Unit
1950	753,200	363	2,074.4 ha.	288,900	1,027	281.3 ha.
1955	881,600	265	3,326.8 ha.	905,800	2,152	420.9 ha.
1960	1,720,100	560	3,071.6 ha.	4,550,200	4,887	937.2 ha.
1965	2,077,000	721	2,880.7 ha.	8,993,900	4,680	1,921.7 ha.
1970	4,491,700	370	12,139.7 ha.	9,033,100	4,626	1,952.7 ha.
1975	4,492,130	391	11,488.82 ha.	9,047,241	4,649	1,946.1 ha.

Source: Anuarul Statistic 1970, op. cit., pp. 242-44, and Anuarul Statistic 1976, op. cit., pp. 164-66.

The Application of Independent Variables: Investments, Manpower,
and Machinery

Concurrently with the process of establishing the organizational framework of socialized agriculture and expanding its reach in the rural areas, the PCR launched a series of ambitious economic plans designed to propel Romania into the ranks of industrial nations. Throughout the entire period examined here, several fundamental aspects of economic planning have remained unchanged. There has been a primary commitment to industry, transportation, and construction over agriculture. Within industrial planning there has been a strong emphasis on the development of heavy industry, Group A in Table 2.11, while the light and consumer goods industries have been seriously neglected. The process of modernization encompassing urbanization and industrialization was considered possible only by a massive population transfer from the countryside to the cities and the new industrial centers. Finally, agriculture was considered a residual category in terms of funding; in practical terms, this meant that the agricultural sector had to make do with the funds and manpower left over from the high priority fields of economic endeavor.

In practical terms, the commitments and outlooks summarized above manifested themselves in relatively low funding for agriculture and relative neglect of the pressing need for skilled manpower in this sector.

Tables 2.11 and 2.12 clearly show that investment in agriculture has been low, relative to the favored industrial sector; by the same token, the educational process has consistently favored the latter over the former category, in terms of both enrollment and graduation. Of particular interest is the considerable decline of emphasis on training cadres for work in agriculture in the 1970s. Add to this the fact that a considerable number of individuals trained for practical work and supervision in the fields, farms, and forests of Romania have succeeded in landing desk jobs in Bucharest, thus becoming part of the top-heavy central bureaucracy. This problem still exists, even though the highly publicized administrative reorganizations which were initiated in early 1973 have succeeded in reducing somewhat the number of central personnel essentially engaged in paperwork. These elements, taken together, produce a picture of considerable scarcity in investment and personnel in Romanian agriculture.

Independent Variables: Production-oriented Policies

Investment in agriculture covers a multitude of activities, and the skilled manpower funneled into this area of economic activity performs a

TABLE 2.11 Investments in Selected Areas of Economic Activity in Romania, 1950-75.
(Millions of Lei)*

Year	Total Investments	Investments in Industry				Investments in Agriculture			
		Group A		Group B		Group A		Group B	
		Total	(% of Total)	Total	(% of Total)	Total	(% of Total)	Total	(% of Total)
1950	6,304	(100%)	2,372	(37.6%)	379	(6.0%)	668	(10.6%)	
1955	14,585	(100%)	6,387	(43.8%)	1,298	(8.9%)	2,033	(13.9%)	
1960	27,665	(100%)	10,051	(36.3%)	1,777	(6.4%)	5,222	(18.9%)	
1965	47,177	(100%)	20,233	(42.9%)	2,088	(4.4%)	8,470	(18.0%)	
1970	79,990	(100%)	32,139	(40.2%)	5,822	(7.3%)	12,789	(16.0%)	
1975	137,731	(100%)	57,787	(42.0%)	10,042	(7.3%)	17,996	(13.1%)	

* Figures for 1950-65 are in 1959-base prices; in the period 1970-75 they are in 1963 prices.

Source: Anuarul Statistic 1976, op. cit., pp. 278-79.

TABLE 2.12 Enrollment and Graduation of Agricultural Students in the Total Educational Effort, 1960-75
(Professional Schools, Post-Lycees, Maistri, and Higher Education)

Year	Students Enrolled			Students Graduated			
	(% of Total)			(% of Total)			
	Total	Industry	Agric.	Total	Industry	Agric.	
1960/61	241,425	115,508	(47.8)	48,458	(20.1)	51,614	(22.6)
1965/66	381,414	163,038	(42.8)	85,326	(22.4)	104,244	(24.2)
1970/71	380,836	189,561	(49.8)	32,071	(8.4)	115,357	(30.3)
1975/76	322,388	192,742	(59.8)	18,461	(5.7)	138,518	(43.0)

* 1974/74

Source: Derived from Anuarul Statistic 1976, op. cit., pp. 426-29; 431-33; 434-36; 437-42.

multitude of tasks. Much of the effort and the investment would produce minimal results, however, if the personnel could not count upon a modicum of technical assistance. The PCR leaders, like their colleagues in the other socialist states of Eastern Europe, have made considerable efforts to expand agricultural machinery and other technical equipment. Also, there has been a consistent program to produce chemical fertilizer and other products needed to expand agricultural production. The universities and other institutions of learning have made considerable efforts to improve methods of sowing, harvesting, weeding, and feeding animals. Some of these efforts are reflected in the following Tables.

The total figures for agricultural machinery do not reveal the considerable imbalance which exists between state and collective farms in terms of technical hardware. In 1969 state farms had 28,220 tractors, 4,849 mechanical cultivators, 3,050 rotating hoes, 9,130 sowing machines, 3,938 fertilizer spreaders, 2,532 irrigators, 11,789 grain combines, and 2,906 corn combines. The collective farms, much larger in number, did not own their own machinery and were dependent upon the machine-tractor stations for equipment. By 1975 the state farms had 28,381 tractors, 6,103 mechanical cultivators, 678 rotating hoes, 9,804 sowing machines, 3,278 fertilizer spreaders, 4,781 irrigators, 2,593 grain combines and 1,390 corn combines in addition to 5,767 self-propelled combines and 2,432 special combines for silo plants. The collective farms still relied upon the machine-tractor stations for equipment. (24)

Mechanization proceeded apace not only in terms of equipment, but also in terms of actual work produced. The following Table, which compares the level of mechanization of a series of agricultural tasks in state and collective farms should be viewed with some reservation; accurate figures on such operations are notoriously difficult to obtain. Nevertheless, Table 2.14 shows the rather wide contrast between the state farms, recipients of priority treatment within the agricultural sector, and the often sorely-neglected collectives.

Another major factor in agricultural production is the application of chemical fertilizer. Table 2.15 examines this aspect of Romanian agriculture since the establishment of a communist regime and the beginning of collectivization.

Table 2.15 shows the preference for state farms perhaps more clearly than any other. Throughout much of the period examined, the state farms utilized considerably more fertilizer than did the collective farms, despite the fact that the latter category occupied much more land constituted the bulk of agricultural units in Romania. In this respect, the regime was certainly true to its ideological goal, which has postulated that all agriculture will eventually become state agriculture.

TABLE 2.13 The Expansion of Agricultural Machinery and Technical Equipment in Romania, 1938-1975
(Total Numbers in Each Category)

	<u>1938</u>	<u>1948</u>	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
Tractors	4,049	10,189	13,713	23,033	44,194	81,356	107,290	119,533
Mechanical Cultivators	--	560	1,343	7,787	20,667	23,241	29,346	34,391
Rotating Hoes	--	--	--	--	6,784	17,118	14,443	6,690
Sowing Machines	--	5,100	6,350	12,454	33,948	65,964	54,427	46,462
Fertilizer Spreaders	--	--	--	--	3,182	4,363	14,504	12,251
Irrigators	--	--	--	--	2,864	5,417	10,713	16,705
Grain Combines*	--	45	118	1,535	17,577	36,844	43,916	20,209
Corn Combines*	--	--	--	--	846	3,143	4,573	2,956
Threshers	15,161	16,320	14,251	15,467	12,660	7,976	--	--
Cultivated Area Per Tractor (hectares)	2,493	957	684	420	222	121	91	81

* By 1975, "self-propelled combines" had taken over. In that year there were 17,912 of them, and also 9,445 combines for silo plants.

Source: Anuarul Statistic 1970, op. cit., pp. 268-69, and Anuarul Statistic 1976, op. cit., pp. 160-62.

TABLE 2.14 Mechanization of Various Worktasks in Romanian Agriculture
(In percent of Total Amount of Work Carried Out in Each Category)
1950-69

	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1969</u>
<u>State Farms</u>					
Plowing	70.7	96.0	98.9	99.5	99.0
Sowing	58.4	86.5	96.1	98.6	99.3
Cultivation	--	23.3	87.8	94.2	91.6
Harvesting of Grains	59.8	86.0	95.3	94.5	98.8
<u>Collective Farms</u>					
Plowing	75.0	85.8	85.9	93.5	97.0
Sowing	33.5	48.5	57.6	78.6	92.9
Cultivation	--	9.0	27.6	42.8	66.4
Harbesting of Grains	29.1	49.2	41.8	57.6	80.3

Source: Anuarul Statistic 1970, op. cit., pp. 302-03.

The evidence examined above indicates that the Romanian regime, while relegating agriculture to a secondary position in terms of economic priority, nevertheless made a consistent effort to enhance the productivity of this sector during the last thirty years. The next section of this paper will focus on the results of the PCR's agricultural policy.

THE DEPENDENT VARIABLES: AGRICULTURAL PRODUCTION IN ROMANIA

Official Romanian statistics provide a wealth of information on the total production of agricultural commodities over time, as well as figures on productivity per organizational unit and employee. Since agriculture consistently has been considered secondary to industry as an economic category, it is useful to compare agricultural growth rates to those found in the high priority fields. Tables 2.4 and 2.16 provide evidence on this subject.

TABLE 2.15 Chemical Fertilizer Applied in Romanian Agriculture, 1950-75
(Thousands of Tons, Active Substance)

	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
<u>Total Agriculture</u>	5.9	21.9	74.5	266.4	594.3	928.7
Thereof:						
Nitrogen	2.6	9.5	24.7	144.5	366.9	571.8
Phosphates	1.6	7.1	46.8	110.1	203.2	314.4
Potassium	1.7	5.3	3.0	11.8	24.2	42.5
<u>State Farms (total)</u>	2.0	4.4	46.1	133.2	205.2	252.0
Thereof:						
Nitrogen	1.0	1.8	13.3	73.1	121.3	143.9
Phosphates	0.7	1.8	32.0	54.0	71.8	90.8
Potassium	0.3	0.8	0.8	6.1	12.1	17.3
<u>Cooperative Farms (total)</u>	0.2	2.4	20.3	123.2	378.9	583.3
Thereof:						
Nitrogen	0.1	1.2	8.4	66.0	239.7	365.8
Phosphates	0.1	0.9	10.8	52.0	127.5	197.3
Potassium	(-)	0.3	1.1	5.2	11.7	20.2

Source: Anuarul Statistic 1976, op. cit., p. 169.

Once again it may be instructive to examine the break-down of production by agricultural units, as shown in Table 2.17. This Table illustrates the changing priorities of the PCR in terms of agricultural production. Increasingly, the production of cereals and "industrial commodities" has been taken over by the state farms and the collectives; however, a large part of the total crop of potatoes, vegetables, and, to some extent, corn is still grown by the individual sector on small, private plots. Clearly, this is one of the most eloquent testimonies to the superior productivity of Romanian agricultural labor when that labor is applied on private land. This conclusion is borne out by figures on productivity per hectare for the commodities examined above; here, the state farms are consistently more pro-

ductive than all of agriculture in virtually all categories, and the collective farms consistently and considerably below the total figures. It seems clear that the low achievement level of the collective farms helps depress the figures for all of agriculture to such an extent that the state farms appear in a more favorable light than reality would warrant. (25)

TABLE 2.16 Production Per Hectare, 1938-75
(In Quintals)

	<u>1934-38</u>	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
Wheat	10.3	8.0	10.2	12.2	19.9	14.4	21.5
Rye	9.2	9.0	10.6	10.5	12.2		
Barley	7.2	6.1	11.4	15.2	20.9	17.8	21.5
Oats	7.8	5.4	9.7	10.5	10.7	8.9	8.1
Corn	10.4	7.4	18.0	15.5	17.8	21.2	27.8
Rice	25.6	20.9	18.6	23.9	24.5	23.4	31.3
Soybeans	6.8	4.1	5.2	4.8	4.8	11.4	17.6
Sunflowers	8.7	4.2	9.0	10.7	12.2	12.7	14.3
Sugar beets	153.5	88.4	138.0	170.2	172.4	172.0	198.6
Potatoes	77.2	69.5	100.6	102.8	72.9	71.1	89.1

Note: 1934-38--average per year.

Source: Anuarul Statistic 1970, op. cit., pp. 316-18, and Anuarul Statistic 1976, op. cit., pp. 178-80.

Further evidence of the important role played by individual producers and the tillers of private plots can be found in the figures on fruit production; Table 2.18 examines this aspect.

One of the main efforts of the Romanian regime has been to increase the number of farm animals, and they succeeded in expanding animal products considerably during the period between 1938 and 1975, as illustrated in Tables 2.3 and 2.4. However, once again, the difference between state farms, collective farms, and other production units can be seen from the total figures, as illustrated by Table 2.19.

TABLE 2.17 Agricultural Production of Selected Commodities by Organizational Units, 1950-75
(In Thousands of Tons)

	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
<u>Wheat</u>						
State Farms	97.7 (4.4%)	272.0 (9.1%)	713.3 (20.7%)	1,626.7 (27.4%)	828.6 (24.4%)	979.6 (19.9%)
Collective Farms	12.1 (0.6%)	360.9 (12.0%)	1,314.9 (38.1%)	4,238.2 (71.4%)	2,504.3 (73.7%)	3,873.6 (78.9%)
Private Plots of						
Coop. Members	0.1 (—)	0.6 (—)	3.5 (0.1%)	4.9 (0.1%)	3.7 (0.1%)	3.2 (0.07%)
Individual Producers	2,109.2 (95.0%)	2,215.8 (73.7%)	394.5 (11.4%)	67.2 (1.1%)	62.0 (1.8%)	55.8 (1.1%)
<u>Rye</u>						
State Farms	3.1 (1.7%)	15.2 (7.1%)	31.5 (30.6%)	16.8 (13.4%)		
Collective Farms	0.8 (0.4%)	20.3 (9.5%)	34.0 (32.9%)	102.4 (81.9%)		
Private Plots of						
Coop. Members	-- (—)	-- (—)	0.1 (0.1%)	0.2 (0.2%)		
Individual Producers	178.5 (97.9%)	175.0 (81.9%)	21.4 (20.7%)	5.5 (4.5%)		
<u>Barley</u>						
State Farms	34.7 (10.7%)	115.3 (25.9%)	155.2 (38.3%)	195.6 (40.3%)	198.0 (38.6%)	420.8 (44.2%)
Collective Farms	1.7 (0.5%)	69.6 (15.7%)	153.6 (37.9%)	284.1 (58.5%)	309.1 (60.2%)	526.8 (55.3%)
Private Plots of						
Coop. Members	0.1 (—)	0.8 (0.2%)	0.6 (0.2%)	1.2 (0.3%)	1.5 (0.3%)	1.0 (0.1%)
Individual Producers	288.4 (88.8%)	239.3 (53.8%)	30.0 (7.4%)	4.5 (0.9%)	4.9 (1.0%)	3.3 (0.4%)
<u>Oats</u>						
State Farms	28.2 (10.0%)	118.5 (31.7%)	61.5 (21.0%)	25.3 (20.4%)	36.5 (31.3%)	8.7 (15.3%)
Collective Farms	1.5 (0.5%)	46.5 (12.4%)	95.1 (33.4%)	84.1 (67.8%)	63.4 (54.3%)	30.6 (53.8%)
Private Plots of						
Coop. Members	-- (—)	0.9 (0.2%)	0.4 (0.2%)	1.0 (0.8%)	1.9 (1.6%)	1.7 (3.0%)
Individual Producers	253.2 (89.5%)	203.0 (54.3%)	57.5 (20.2%)	13.5 (10.9%)	15.0 (12.8%)	15.9 (27.9%)
<u>Corn</u>						
State Farms	30.6 (1.5%)	376.1 (6.4%)	693.5 (12.5%)	1,236.9 (21.0%)	1,459.2 (22.1%)	2,058.1 (22.3%)
Collective Farms	8.2 (0.4%)	299.7 (5.1%)	1,721.5 (31.1%)	3,646.3 (62.1%)	3,838.7 (58.2%)	5,379.6 (58.2%)
Private Plots of						
Coop. Members	0.5 (—)	24.9 (0.4%)	218.4 (4.0%)	812.2 (13.8%)	991.4 (14.7%)	1,474.4 (16.0%)
Individual Producers	2,061.7 (98.1%)	4,917.4 (83.7%)	914.2 (16.5%)	175.3 (3.0%)	244.9 (3.7%)	328.6 (3.8%)

* A considerable amount of corn production in the 1950s and 1960s came from cooperative ventures of individual farmers.

TABLE 2.17 (Cont'd.)

	1950	1955	1960	1965	1970	1975
<u>Sunflowers</u>						
State Farms	13.8 (6.5%)	7.2 (2.6%)	71.1 (13.6%)	124.9 (22.2%)	222.9 (29.0%)	140.5 (17.3%)
Collective Farms	1.1 (0.5%)	30.7 (11.1%)	226.1 (43.3%)	437.8 (77.6%)	546.5 (71.0%)	587.3 (80.7%)
Private Plots of						
Coop. Members	-- (--)	0.3 (0.1%)	0.8 (0.2%)	0.6 (0.1%)	0.1 (0.01%)	0.1 (0.01%)
Individual Producers	198.7 (93.0%)	221.0 (79.6%)	48.0 (9.2%)	0.7 (0.1%)	0.1 (0.01%)	0.2 (0.03%)
<u>Sugar beets*</u>						
State Farms	41.4 (6.5%)	137.6 (6.9%)	92.4 (2.7%)	36.7 (1.1%)	6.1 (0.2%)	13.8 (0.3%)
Collective Farms	3.6 (0.6%)	156.0 (7.8%)	2,060.9 (60.6%)	3,237.6 (98.6%)	2,915.2 (99.8%)	4,888.1 (99.65%)
Private Plots of						
Coop. Members	-- (--)	-- (--)	1.3 (0.1%)	0.3 (--)	-- (--)	2.5 (0.05%)
Individual Producers	587.8 (92.6%)	1,631.0 (81.5%)	58.2 (1.7%)	0.6 (--)	-- (--)	0.7 (0.01%)
<u>Potatoes</u>						
State Farms	69.8 (4.4%)	190.9 (7.3%)	111.9 (3.7%)	143.1 (6.5%)	163.9 (7.9%)	195.7 (7.2%)
Collective Farms	6.3 (0.4%)	125.7 (4.8%)	377.6 (12.6%)	970.7 (44.2%)	869.5 (42.1%)	1,104.3 (40.7%)
Private Plots of						
Coop. Members	0.8 (--)	37.9 (1.4%)	271.4 (9.0%)	769.9 (35.1%)	711.7 (34.5%)	969.9 (35.7%)
Individual Producers	1,524.4 (95.2%)	2,225.9 (85.4%)	1,293.0 (43.0%)	307.9 (14.0%)	318.3 (15.4%)	446.0 (16.4%)
<u>Vegetables</u>						
State Farms	89.4 (7.9%)	272.0 (17.3%)	219.7 (12.0%)	176.0 (10.6%)	306.4 (15.3%)	447.9 (17.8%)
Collective Farms	4.4 (0.4%)	113.9 (7.2%)	407.3 (22.2%)	915.1 (57.3%)	1,059.9 (52.9%)	991.2 (39.4%)
Private Plots of						
Coop. Members	3.6 (0.3%)	54.4 (3.5%)	246.8 (13.5%)	458.0 (27.7%)	530.5 (26.5%)	908.9 (36.1%)
Individual Producers	1,029.1 (91.4%)	1,108.7 (70.6%)	604.2 (33.0%)	105.0 (6.4%)	107.1 (5.3%)	169.7 (6.7%)

* In the early 1960s, a considerable amount of the production of sugar beets came from cooperatives of individual farmers.

Source: Anuarul Statistic 1970, op. cit., pp. 328-45, and Anuarul Statistic 1976, op. cit., pp. 196-206.

TABLE 2.18 Fruit Production in the Various Agricultural Units, 1950-75
(Each Unit Measured in Terms of Total Fruit Production)

State Farms	6.1%	5.2%	6.3%	8.3%	13.3%	25.2%
Collective Farms	--	2.2%	5.1%	15.5%	18.6%	18.7%
Private Plots	0.5%	1.2%	7.7%	45.2%	39.9%	36.1%
Indiv. Producers	93.4%	91.3%	72.8%	30.2%	27.2%	20.0%

Source: Anuarul Statistic 1970, op. cit., pp. 405-06, and Anuarul Statistic 1976, op. cit., pp. 232-33.

THE COSTS OF COLLECTIVIZATION

Numbers in this case speak more clearly than words. The Romanian economy could not survive without the supply of animal products, potatoes, and vegetables which comes from individual plots and the private sector. Thus, as of 1977, the PCR is quite far removed from its avowed goal of completely socializing all agricultural production. Such a move would not be politically nor economically rational.

If the figures presented in the tables of the previous section are taken together, one can arrive at a "global" figure on agricultural performance during the period of collectivization and post-collectivization. Such figures have been compiled also by Romanian statisticians who claim that, on a base of 100 in 1938, total agricultural production stood at 165 in 1969 and 214 in 1975; included in this figure is a score of 154 for vegetable and 191 for animal production for 1969, and 181 and 287 respectively, for 1975. If 1950, the inception of collectivization, is taken as a base year, the scores for total agricultural production are 223 in 1969 and 289 in 1975. The higher score when 1950 is used as a base reflects the fact that Romania did not reach the production level of 1938 until 1953 and dipped below that level in 1956, with 1954 and 1958 as other poor years. (26)

TABLE 2.19 Animal Production by Organizational Unit, 1950-75
(Percent of Total Production)

	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>
<u>State Farms</u>						
Meat	9.8%	10.1%	14.8%	22.4%	28.4%	29.1%
Milk	1.6%	2.8%	6.6%	16.9%	16.0%	14.9%
Wool	3.5%	6.8%	11.4%	17.4%	19.2%	20.2%
Eggs	0.8%	1.1%	1.6%	11.8%	18.9%	28.7%
<u>Collective Farms</u>						
Meat	0.2%	1.2%	9.3%	23.0%	22.5%	25.0%
Milk	0.2%	1.3%	6.2%	26.8%	28.7%	27.8%
Wool	0.2%	5.0%	16.9%	40.0%	36.7%	36.9%
Eggs	0.09%	0.2%	0.9%	4.0%	3.2%	9.0%
<u>Private Plots</u>						
Meat	0.2%	4.9%	22.5%	43.1%	36.5%	33.4%
Milk	0.1%	4.0%	19.2%	40.3%	37.4%	37.7%
Wool	0.1%	4.5%	17.9%	32.4%	33.5%	31.3%
Eggs	0.09%	5.4%	32.1%	62.0%	59.2%	48.9%
<u>Indiv. Producers</u>						
Meat	89.9%	83.9%	53.3%	11.5%	12.7%	12.6%
Milk	98.1%	91.8%	66.4%	16.0%	17.0%	19.6%
Wool	96.2%	83.7%	51.5%	10.1%	10.6%	11.7%
Eggs	99.0%	93.3%	65.5%	22.3%	18.7%	13.6%

Source: Anuarul Statistic 1970, op. cit., pp. 430-31, and Anuarul Statistic 1976, op. cit., pp. 254-55.

A comparison between agriculture and industry further emphasizes the slow growth of Romanian agriculture since the inception of collectivization. While total agricultural production increased to 289 in 1975, all industry had expanded twenty-one times by that time, for an average annual increase of 12.9 percent; heavy industry had expanded twenty-nine times or 14.4 percent per year; and light industry had expanded twelve times or 10.6 percent per year. (27) In comparison, the average yearly increase in agricultural production was only 4.3 percent. (28) Although the statistical yearbooks are replete with detailed figures on industrial productivity per worker, such figures are not available in agriculture. Only indirect evidence indicates that it is very low, even in comparison with other socialist economies.*

The Economic Costs

Without access to confidential data and evaluations, an assessment of the economic costs of collectivization in Romania cannot be made easily. On the one hand, the mediocre results of agricultural production and productivity are fairly predictable, given the PCR tendency to relegate agriculture to a secondary position in the total economic effort. On the other hand, it seems clear that the regime has received a low return on even that secondary effort. Within the framework of priorities established by the regime, the socialized and collectivized agriculture of Romania has performed badly.

Perennial Shortages of Many Agricultural Commodities

Every year Nicolae Ceausescu and his colleagues castigate those responsible for agricultural planning and production, pointing out that faulty work, low productivity, and the underutilization of machinery and equipment result in the loss of millions of lei of production; this in turn leads to reduction in exports and personal consumption. In the fall of 1972, poor weather and a series of organizational and production mistakes resulted in the loss of a substantial part of the harvest. Scinteia and other Party press organs heaped criticism upon agricultural and Party cadres alike. (29)

* An article in Probleme Economice, February 1973, stated that productivity on the state farms was six times higher than on the collectives. Furthermore, Traian Lazar in Era Socialista 15/1975, stated that it takes ten hours to produce one ton of wheat in Romania versus four to eight hours in France; for meat, one ton of live weight requires 400 hours in Romania versus 100 hours in the United States.

When the PCR Executive Committee discussed this problem later in the fall, (30) the figures on plan fulfillment for 1972 showed that in no major category did actual production meet the plan figures. (31) In 1972 only the total production of cereal grains exceeded the plan, despite the fact that 1972 had offered good growing conditions until the harvesting season. (32) During 1973 there were many problems with the planting and sowing of crops, and the plan essentially remained underfulfilled. (33) In early 1975 some of the worst floods in Romanian history hampered agricultural activities, but Ceausescu remained undaunted. He supervised a considerable revision of the 1976-1980 Five-Year-Plan targets upward, even in agriculture. (34) In October of 1975, a meeting of the PCR judet (county) officials was called to discuss ways to alleviate serious shortages in the food supply; (35) this meeting followed a discussion by the Supreme Council on Socioeconomic Development dealing with production problems and serious deficiencies in labor productivity. (36) Although Ceausescu continued his ceaseless campaign to increase production in this sector in 1975-76, persistent problems were admitted. Perhaps they were expressed most forcefully in an article by Professor Traian Lazar in Era Socialista, the main Party journal of the PCR. (37) Despite a rather good year in 1976, the agricultural plan remained underfulfilled in many important areas other than cereal grains. (38)

Persistent Underutilization of Manpower and Equipment

Some of the problems discussed above stem from the failure of Romanian agricultural cadres to utilize available machinery, equipment, and transportation facilities efficiently and rationally. As a result of this, significant amounts of crops which have been successfully grown during the season rot on the vine or perish on railroad sidings or in inadequate storage facilities. (39) The heavily overworked railroad system, operating under the incessant demands of high priority fields such as industry and mining, have proved inadequate to the task of moving agricultural commodities quickly and efficiently from the producer to the consumer. Added to this is the inadequate road system, the insufficiency of truck and car fleets, and the low number of refrigeration units available. It is easy to see why each year the harvest becomes a major logistics problem.

This problem is often handled through the peculiar PCR penchant for "campaigning" and "storming." During the sowing and harvesting seasons, thousands of industrial workers, soldiers, and school children are utilized in a crash program to complete massive tasks. This "campaign" approach often results in too much manpower for the agricultural equipment and the transportation infrastructure to handle, and frequently the result is confusion. In addition, the extra manpower commandeered from other sectors of the economy creates bottlenecks in the depleted sectors, and these problems

must be dealt with in subsequent campaigns in those areas. Thus, the bottlenecks spread throughout the entire economy, a phenomenon which almost ensures that the highly-detailed production plans will remain underfulfilled. (40)

The "campaign" approach to equipment procurement also causes serious problems. In many cases, the bulk of agricultural equipment is produced toward the end of each year's planning period, and there is a sudden rush to dispose of all this machinery before the accounting process begins. As a result, machinery is shipped to agricultural units where no skilled personnel is available, and there it rusts behind the barns. Where skilled manpower is available, the inadequate supply of spare parts for farm machinery is likely to reduce utilization and, consequently, increase the amount of time during which equipment remains idle. (41)

Low Quality of Agricultural Produce and Products

Throughout the entire period of socialized and collectivized agriculture, low quality has remained a persistent problem. Throughout the 1960s and 1970s, the regime leadership launched repeated and sustained campaigns to improve quality control. Some progress doubtless has been made, but there are many indications that the problem is far from solved. Low quality means less competitiveness on the export market, as well as increasing consumer dissatisfaction at a time when the regime is attempting to enhance its legitimacy among the broad masses of the citizenry. The regime is caught in the image it created; by emphasizing that economic development would lead to an improved diet and better selection of foodstuffs, the PCR leadership has created a built-in source of consumer dissatisfaction. This problem cannot be alleviated or solved without fundamental rearrangements of priorities and organizational forms now prevailing in Romanian agriculture. There is no indication that the PCR is about to embark on such fundamental changes in the near future, and the agricultural crisis is, therefore, likely to continue.

Regime commitment, investments, and the performance of agricultural and production cadres in Romania have combined to produce a serious problem throughout the entire economy. As the modernization process continues, a growing number of urban dwellers will demand the increased production of agricultural commodities from a dwindling number of agricultural employees. Worse still, the most productive agricultural workers are departing for the city in increasing numbers, while the elderly and the very young remain in the countryside. This is bound to have a negative effect upon production. In the foreseeable future, it is likely that Romania, as well as the other socialist economies of Eastern Europe, will experience a serious economic crisis brought forth by this growing imbalance. At that

juncture, the regime will have to come to grips with both the status of agriculture in the total economy and the organizational forms, now ideologically pre-determined, that control it.

How much of the agricultural problem in Romania is due to collectivization? The available evidence does not support an exact answer to this question; however, it seems clear that the very decision to collectivize, the process itself, and the speed with which it was concluded have all contributed significantly to the problem. Collectivization of agriculture was an integral part of an economic philosophy which considered this economic sector not only secondary in importance, but of only residual value after all the high-priority activities had received their due. Such a philosophy cannot capture the enthusiasm of those engaged in the proclaimed secondary occupation; the result is a lack of commitment, slack work performance, pilferage and theft. Despite the ideological dictum that socialized and collectivized agriculture is superior to individual farms, productivity is considerably higher on the private plots and in the private sector in several areas of production. Despite the confident prediction of the regime's leaders that the private plots and the individual producers would soon disappear from the economic scene, the Romanian economy could not have survived without the production of these much-maligned individuals and units.

All of the factors discussed above lead to the conclusion that the collectivization of Romanian agriculture was beneficial only in the sense that it established mechanisms which ensured a maximum of regime control over the activity in this sector and a minimum floor of production; it was not conducive to maximization of production. While the economic costs were high, the political costs may have been even higher.

Social and Political Costs of Collectivization

Economic costs certainly cannot be divorced from the social and political costs of a particular policy; and the social and political costs of collectivization were manifold. These elements became intertwined to such an extent that an analyst would have considerable difficulty extracting one from the other. Nevertheless, such a process of disentanglement can be undertaken analytically.

The forced takeover of agricultural land alienated a large proportion of the still largely-rural population of Romania and added to the considerable problems experienced by the PCR in gaining support in the countryside. For centuries, the Romanian peasant had been exploited by remote landowners who did not allow him any real rights to the land he so faithfully tilled. The several land reforms in the twentieth century had alleviated

this situation somewhat, and rather large numbers of individuals had been able to establish family farms for the first time in history. The seizure of this hard-earned land created a great deal of hostility and open resentment, and this reluctant and sullen acceptance of an overwhelming force had disastrous effects upon the productivity of socialized and collectivized land. The dispossessed peasant had no incentive to work for the new, remote, exploitative masters in Bucharest; instead he lavished his attention upon the small private plot left in his sole possession, while work on the public land was marked by indifference, sloppiness, and pilferage. (42)

The harsh methods often employed in the collectivization process evoked two essential images for the victims of the program. First of all, this was naked coercion. After the initial emphasis on voluntary membership in the collectives, the regime levied a series of punitive taxes on those who did not join. In some areas, notably those inhabited by ethnic Germans and Hungarians, outright confiscation of land took place where individuals had allegedly "collaborated" with the Nazis during the war. Such methods were not designed to produce public support, and the peasants' reaction, even if passively expressed, was predictably one of political rejection. Secondly, it was clear throughout most of the collectivization period that the PCR was merely transplanting the Soviet agricultural system to Romanian soil without much regard for the special conditions of the country. This policy added strongly to the aspect of foreignness of the regime's policies in a staunchly anti-Russian and anti-communist population and helped widen the chasm between the regime and its citizenry. It was only after the 1964 "declaration of independence" (43) by the PCR vis-a-vis Moscow that the vast masses of Romanians began to feel solidarity with their leadership in national and foreign policy. However, by then the collectivization drive had been completed and the deep resentment had become embedded in the population. No amount of nationalistic foreign policy could erase this widespread feeling among large sectors of the population. (44)

The collectivization of Romanian agriculture carried strong overtones of political and social transformation. The constant "meddling" of the local and regional Party organizations and Bucharest itself was resented by many in the countryside. After Nicolae Ceausescu rose to the top PCR position in 1965, the campaign to instill a higher ideological level in all segments of the population was waged relentlessly; this climaxed in the summer and fall of 1971, which saw the inception of the so-called "little cultural revolution." This concerted campaign of ideological and political education is a personal policy on the part of the PCR General Secretary, whose commitment to the remaking of individuals into "new socialist men and women" appears to be unique in Eastern Europe. By all available evidence, it is met with considerable skepticism in the rural population. (45)

One element of the ideological campaign is highly popular with the Romanian population, however. The strongly nationalistic elements of Nicolae

Ceausescu's political program are generally and enthusiastically supported by the rank and file, and this is perhaps the strongest source of legitimacy now available to the regime. However, even this aspect carries with it many negative connotations for the ethnic minorities of Romania, who clearly resent the strong Romanian elements of the political and ideological program executed in the countryside. (46)

While it cannot be said that collectivization per se is directly responsible, it is clear that the dismantling of private agriculture and the setting up of a centrally-controlled economic system provided the organizational prerequisites for effective execution of the Party's program in the countryside. The processes of collectivization and political indoctrination and control are inextricably intertwined in the minds of the peasantry of Romania, thereby significantly reducing popular support for either process.

Taking all the aspects discussed in this paper, it seems clear that the collectivization of Romanian agriculture has been a considerable handicap in terms of production and the establishment of regime legitimacy in the population. The continued existence of such organizational forms in agriculture bears eloquent testimony to the importance of ideological dicta in PCR decision-making.

NOTES

- (1) Zbigniew K. Brzezinski, The Soviet Bloc (Cambridge: Harvard University Press, 1969) especially pp. 84-139.
- (2) See, for example, Ivan T. Berend and György Ranki, Economic Development in East-Central Europe in the 19th and 20th Centuries (New York: Columbia University Press, 1974) especially Chapter 4.
- (3) Ibid., Ch. 2
- (4) Brzezinski, op. cit., especially pp. 84-139.
- (5) See, for example, Zbigniew M. Fallenbuchl (ed.), Economic Development in the Soviet Union and Eastern Europe, vol. 1 (New York: Praeger, 1975), ch. 1.
- (6) Republica Socialista Romania, Directia Centrala de Statistica, Anuarul Statistic al Republicii Socialiste Romania 1970, p. 268.
- (7) League of Nations, Economic Intelligence Service, Statistical Yearbook of the League of Nations, 1940, Geneva, pp. 39-40.

- (8) David Mitrany, The Land and the Peasant in Rumania: The War and Agrarian Reform (1917-1921) (London: Oxford University Press, 1930), p. 51.
- (9) Ibid., p. 71.
- (10) Ibid., p. 189.
- (11) Ibid., pp. 200-04.
- (12) Ibid., p. 206.
- (13) Ibid., p. 211.
- (14) E. g., Ghita Ionescu, Communism in Rumania 1944-1962 (London: Oxford University Press, 1964) especially chapters 2,3,4,5.
- (15) See, for example, Trond Gilberg, Modernization in Romania Since World War II (New York: Praeger Publishers, 1975); see also, Academia Republicii Populare Romine, Institutul de Cercetari Economice, Dezvoltarea Economica a Rominiei 1944-1964, 1964, Bucharest, especially chapters 2,3.
- (16) Dezvoltarea Economica a Rominiei, pp. 24-29, 53-57.
- (17) Ibid.
- (18) Ibid., pp. 70-76.
- (19) Gilberg, op. cit., p. 35.
- (20) Ibid., ch. 2.
- (21) Anuarul Statistic 1970, p. 64; Anuarul Statistic 1976, p. 9.
- (22) See, for example, Fallenbuchl, op. cit., especially chapters 1,2,3.
- (23) Dezvoltarea Economica a Rominiei, especially chapters 3,4,5.
- (24) Anuarul Statistic 1970, pp. 274-75 and 292-93; Anuarul Statistic 1976, pp. 164-66 and 168-70.

- (25) For a discussion of possible biases in official Romanian statistics, see John M. Montias, Economic Development in Communist Rumania (Cambridge: The M.I. T. Press, 1967) p. IX.
- (26) Anuarul Statistic 1970, p. 439; Anuarul Statistic 1976, p. 265.
- (27) Anuarul Statistic 1976, pp. 90-91.
- (28) *Ibid.*, p. 45.
- (29) E. g., Romania Libera, September 24, (1972).
- (30) For lengthy discussions on this meeting, see Scinteia, November 17-21, 1972.
- (31) Agerpres, February 14, (1973).
- (32) *Ibid.*
- (33) On the sowing difficulties, see, for example, Scinteia, May 12, 1973.
- (34) Ceausescu in Scinteia, July 22, 1975; here he called for a production increase in agriculture in the period 1976-80 of 34-36 percent over the 1971-75 average, whereas the five-year plan had envisioned an increase of only 25-34 percent.
- (35) See discussions in Scinteia, October 19-23, 1975, on this topic.
- (36) *Ibid.*, July 22, 1975.
- (37) Era Socialista, No. 15 (1975).
- (38) See report of Harvest Day celebrations, October 31, in Scinteia, November 1, 1976.
- (39) Ceausescu in *ibid.*, March 3, 1973.
- (40) For a discussion of this, see Gilberg, *op. cit.*, especially ch. 5.
- (41) Many discussions have been held to alleviate this problem; see, for example, an article in Revista Economica, (July 30, 1976).

- (42) The General Secretary has often commented on this shortcoming; e. g., at The Eleventh PCR Congress, November 1974, in Congresul al XI-Lea al Partidului Comunist Roman (Bucharest: Editura Politica, 1975) esp. pp. 75-79, where he emphasizes political education as the main solution.
- (43) For a discussion of this document, see Stephen Fischer-Galati, Twentieth Century Rumania (New York: Columbia University Press, 1970) especially pp. 176-82.
- (44) This problem was discussed in detail by Nicolae Ceausescu at a meeting of the judet (county) first party secretaries on February 28, 1976. See information campaign on this in Scinteia, (February 28-March 5, 1976).
- (45) The Romanian Press conducted a campaign concerning the low ideological level of the population in November 1973; see, for example, Scinteia Tineretului, (November 3, 1973), and Scinteia (same date).
- (46) See Trond Gilberg, "Ethnic Minorities in Romania under Socialism," East European Quarterly (January 1974), pp. 435-64.

3

Agricultural Collectivization in The German Democratic Republic Ronald A. Francisco

The rationale for complete agricultural collectivization in the German Democratic Republic (GDR) was grounded in ideology - not in efficiency. Opposition was widespread. Many, if not most, of the government's own economists feared that forced collectivization might foster intolerable levels of disruption and flight to West Germany. This view, shared by Western observers, grew stronger when Walter Ulbricht launched his rural Blitzkrieg in 1960 and forcefully collectivized one-half of the nation's agricultural land in just three months. As predicated, refugees streamed to the West in nearly record numbers. Food production was disrupted and supply lines were chaotic. Western reaction varied widely in tone, but not in prognosis: the GDR would suffer a disastrous shortfall in food production and would not recover quickly. (1)

The goal of this paper is to evaluate what did, in fact, happen after eight years of gradual and three months of intensely-forced collectivization in East Germany. It examines the government's collectivization tactics and their impact on productivity and support for the regime. In addition, it seeks to determine whether collective agriculture has been a more or less efficient mode of production and whether the government's ambitious post-collectivization policies have been effective.

THE UNEVEN PACE OF COLLECTIVIZATION

Establishing the Groundwork, 1945-52

The final, desperate, last-ditch efforts to defend Hitler's Reich against the Red Army took place largely in the East German countryside. Grain

fields and pastures were overrun with tanks and artillery. Countless villages and farm buildings were shelled and burned. Livestock which had somehow escaped death in the fighting was quickly expropriated by the Soviets. When hostilities ended, life grew quieter, but hardly better. The shortage of working-age men was acute, and the region's economic infrastructure was destroyed. This was the dismal state of agriculture in the Soviet occupation zone in the summer of 1945; (2) and it was in this context that the Soviets unleashed a massive land reform - one which dwarfed any similar attempts in other occupation zones.

Estates of more than 100 hectares were seized without compensation, as were farms belonging to more than 4,000 Nazis and "war criminals". Almost half the entire agricultural area in the zone was confiscated, and two-thirds of this land was then distributed among poor farmers, farm workers, and refugees. The remaining third was carved into large units and converted into state farms of the Soviet type. The land reform was clearly a bid for popular support. It was not, however, a Soviet endorsement of the virtues of capitalist agriculture. The newly-created private farms of between 5 and 8.5 hectares were purposely made too small to survive independently. This massive creation of a new class of small private farmers was, ironically, the first programmed impetus for later collectivization. (3)

The proliferation of new farms created a variety of urgent administrative needs: principally an orderly distribution system for supplies and machinery, a means to evaluate individual cases, and a mechanism to grant credit. In order to accomplish these functions, the government created a national organization called the "Association for Mutual Farmer Support." While this injection of order into chaos was doubtless a relief to farmers, it was an important step in the state's strategy. The new organization was able to absorb all traditional farm groups and neutralize their impact. It enables authorities to maintain central control of the allocation of materials and incentives, and it served as a vehicle for the authoritative implementation of state reform decisions at the local level. (4)

New, specialized organizations emerged in every locality during 1947 to coordinate the distribution and use of machinery. The Machine Loan Stations again combined an essential requirement for the farmer with a convenient means of state direction and control. By 1949, the Machine Loan Stations dominated not only the supply of machines, but the political and cultural life of every village as well. (5) Hence, four years after the collapse of Hitler's Reich the face of East German agriculture had been revolutionized and the groundwork for collectivization virtually set.

Only one major hurdle remained. Yet it was the most fundamental of all. The land reform, centralization, and other major reforms of the state had done nothing to alter the basic production mechanism. Because food

was produced by thousands of small, independent farmers, production decisions were governed principally by supply and demand. When planting time arrived, it was not the state that chose each farmer's crop, but the forces of the demand market. This was an intolerable ideological embarrassment for the fledgling socialist republic, and it was remedied in 1950: a new system of "State Registration and Purchasing Units" was inaugurated, and the planned economy made its belated, but full-fledged, debut on the East German countryside. (6)

The Voluntary Phase, 1952-59

The first agricultural collectives appeared in 1952. This step had been prepared for seven years and its implementation was marked by careful planning and circumspection. The regime, deeply uncertain of its public legitimacy, clearly sought to avoid repetition of the horrors of Soviet collectivization. The party leaders evidently decided to pay far greater heed to Stalin's ideological precursors than he himself had. Collectivization was to be voluntary. It was not, of course fully voluntary, but it was much milder in its tactics during this early phase than either the Soviet campaign had been or the East German drive was later to become.

Most of the state's tactics and incentives were drawn from the Soviet model. The Machine Loan Stations, for example, in 1952 became Machine Tractor Stations. As was the case with their namesakes in the USSR, their function was to monopolize the availability of implements and thus pressure independent farmers to collectivize. Similar pressure came from every conceivable bureaucratic source. In this sense the GDR's collectivization drive was voluntary only in the most superficial manner and was disturbingly reminiscent of Stalin.

There was another side to the drive, however, which was genuinely positive and designed to encourage voluntary membership. Collectives were made to look economically attractive. Heavy state subsidies flowed to them through investment credits; and they were given priority access to machinery, fertilizer, and other farm equipment. Life for the individual collective farmer also had economic attractions. Taxes were significantly lower, minimum incomes were guaranteed, and almost all indebtedness from farming for the year preceeding membership was cancelled by the state. (7)

These incentives were coupled with a tantalizing variety of collective farm structures. This was perhaps the most original plank in the GDR's package, and it disarmed a great deal of resistance. The idea was very simple, and one wonders why it never occurred to the Soviets. No matter

how attractive collective life seemed to be, it remained for the private farmer an uncertain and intangible life. Hence, why should the state insist upon a sudden and full transformation from traditional private farms to collective farms? Why not make the process less unpleasant by making it less abrupt and more gradual? The GDR did precisely this by creating three separate types of collective farms. Type 1, which most preferred, allowed a farmer to retain nominal title to his land when he made it part of the collective. Nothing was required beyond this; each farmer maintained independent ownership and control of all of his machinery, livestock, and buildings. Type 2 differed from Type 1 only in its inclusion of machinery in collective ownership; livestock and buildings remained private property. Type 3 was a collective farm of the Soviet type; all property was transferred, with the exception of a private plot of one-half hectare and a limited number of livestock.

This was a carefully thought-out and well-presented program of collectivization, and it achieved immediate results. A large number of farmers enrolled in the first year, most of them voluntarily. The bulk of these consisted of men who had not been able to operate efficiently as independent farmers on the meager parcels of land distributed by the state. Hence, the ulterior motive of the ideologically questionable land reform seemed to pay off. Pre-programmed failure in private farming became a significant impetus for collectivization.

To the dismay of the regime, however, many farmers were doing quite well on their small parcels and had achieved a remarkable standard of affluence. (8) Hence, after the first large wave of recruits had settled into collectivization, there was little further progress. Relatively prosperous farmers, who now constituted the majority of producers, preferred to remain independent in spite of the tax advantages, material incentives, and other pressures of collectivization. (9) Simultaneously, events combined to reduce these pressures considerably. First, Stalin died and the Soviets suddenly became less insistent on rapid collectivization. Second, the rioting and rebellion of June 17, 1953 shook the state badly. The disgruntled workers were driven back only by the intervention of Soviet forces. The ruling party had little choice in the wake of this protest but to retreat from its hard line on many issues, including collectivization. (10)

The tempo of collectivization remained slow until attempts were made in 1956 to reinvigorate the drive. A new technique, one developed in China, of state participation was applied to make collectivization once more a serious, if not very palatable, alternative for private farmers. Considerable political and economic pressure was used to convince private farmers to allow the state to become a partner in their business, with full rights to participate in decision-making. This was a thinly-disguised first step to full collectivization. It was not extremely effective and was used more

broadly in non-agricultural business than on farms. (11) The drive to collectivize the GDR fully was clearly at a crossroad. It was not to proceed further until some long-standing ideological battles were at last fought to the finish.

Efficiency vs. Doctrine

While the East German government characteristically insists upon a public image of unanimity in all important policy areas, there is considerable evidence that official policy on collectivization was an issue of primary contention among Party strategists. Opinion divided along two lines. In the early stages of decision-making the conflict was basically ideological. The ruling Socialist Unity Party (Sozialistische Einheitspartei Deutschlands, SED) is an amalgam of two bitter pre-war enemies; the German Social Democratic and Communist parties were merged in the Soviet zone in a "shot-gun marriage" on April 22, 1946. (12)

It was primarily the left-wing Social Democrats who flocked to the new Party, although the Communists' goals were doubtless too radical even for them. Collectivization seems to be a case in point. There is no direct evidence, but the Social Democrats appear to have been opposed to anything but genuinely voluntary collectivization. This is one possible explanation for former Social Democrat Minister-President Otto Grotewohl's unusual public statement two years before collectivization began: "It is fully unfounded and false that the government of the GDR intends after the election to take measures to collectivize agriculture." (13)

A more significant cleavage erupted after collectivization began. Collectivization had been a politically motivated decision rather than an economic one. Nonetheless, it impinged greatly upon the economic potential of the GDR. Economic planners, therefore, balked at the speedy transformation of ownership patterns in agriculture sought by party ideologues. The first evidence of this was the ouster in May, 1953 of Kurt Vieweg, Central Committee Secretary for Agriculture. Vieweg had opposed the pace of collectivization which the party had chosen. (14) His views, however, were carried forth by a group of economic reformers who emerged and grew increasingly influential between 1956 and 1958. Collectivization proceeded slowly during this period, indicating that the reformist view played a significant role. One active reformer even went so far in 1958 as to suggest that weak or unprofitable collective farms be dissolved. (15)

This kind of thinking was a direct affront to Walter Ulbricht's assiduous attempts to implement Soviet policies in the GDR. By 1958 the threat had become too salient and the reformers were pushed. Thereafter, all

basic economic policy decisions were dictated on ideological, not economic, grounds. Among these was forced collectivization. The question after 1958 was no longer whether it would occur, but when it would occur. (16)

Forced Collectivization, 1959-60

It began in 1959, but hit full velocity with a frantic campaign in the first three months of 1960. The incentives from the voluntary phase remained and many were sweetened further. This stage of collectivization, however, was directed against the farmers who had resisted both pressure and incentives for more than seven years. Stronger tactics were clearly necessary, and they were employed. There was not the violence of Stalin's drive in the USSR, but neither was there any choice for reluctant farmers. If one wanted to remain a farmer in the GDR, one signed the forms. There were too many ways for the state to control both business and personal life for anyone to resist over the long term.

There was nothing novel about this; forced collectivization with its pressures, threats, and violence is similar everywhere. The interesting difference for the GDR was that there was another alternative: a citizen could move to another country with the same language, culture, and history, one which differed from home only in politics and economics. A great many took this alternative, although the authorities did their part to discourage it. (17)

The fact that the government permitted this massive exodus and the fact that actively-forced collectivization did not begin until two years after the reformers had been purged have puzzled analysts. Why was 1960 chosen? Why were so many allowed to escape? These are particularly baffling questions when one considers that the drive was mounted at the same time the government was exhorting its citizens to achieve the "primary economic task." This task was the overtaking of West Germany in per capita consumption of most basic commodities by 1961, the same year the USSR was supposed to surpass the United States. The plan was idealistic and impractical under any circumstances, but almost ludicrous during a period of forced collectivization. (18)

Nonetheless, almost one-half of the agricultural land in the country was forcibly collectivized in just three months (Table 3.1). The decision was made suddenly and over the opposition of agricultural officials, regional party secretaries, Minister-President Grotewohl, and the Planning Commission. There is evidence that not even the Politburo was consulted. (19) The decision was Ulbricht's alone, with almost certain approval by the Kremlin. Ulbricht was irritated with the slow pace of voluntary collectivization, with the low levels of production, and with the generally poor

performance of the agricultural sector. Yet if he really felt that the efficiency of the GDR's farmers would improve if he forced them to give up their property rights, then he was surely deceived by his ideology. And if he did not believe this, then it is difficult to understand why such strong, unpopular, and sudden measures were taken.

TABLE 3.1 Index of Private Agricultural Area
(1950 = 100)

1950	100.0	1958	65.1	1966	6.2
1951	99.0	1959	54.1	1967	6.1
1952	98.8	1960	7.9	1968	6.1
1953	78.2	1961	7.6	1969	5.9
1954	79.6	1962	6.9	1970	5.9
1955	76.5	1963	6.7	1971	5.7
1956	73.2	1964	6.5	1972	5.6
1957	70.6	1965	6.3	1973	5.4

Source: 1950-1970 from Gregor Lazarcik, East German Agricultural Production, Expenses, Gross and Net Product, and Productivity, 1938 and 1950-1970 (Columbia Research Project on National Income in East-Central Europe, Occasional Paper No. 36, 1972). 1971-1973 calculated from Statistisches Jahrbuch der Deutschen Demokratischen Republik (East Berlin: Staatsverlag der DDR, 1972-1974).

INITIAL IMPACT OF COLLECTIVIZATION

Most of the GDR's farmers had operated their own enterprises in 1959. However, by May of 1960 they found themselves bound together in collectives with about seventy of their counterparts. Others refused to accept this fate and fled to the West. Still others stopped farming altogether and took up another trade. The immediate, short-term impact of collectivization was nearly catastrophic.

Refugees

"Keeping them down on the farm" is a common problem for many socialist governments, and the GDR was no exception. However, it had a second and far more serious difficulty: how to keep them in the country. Until 1961 refugees streamed out of the GDR to West Germany throughout the postwar era. The authorities had even programmed a loss of productive labor through flight in their first plan. They did not, however, envision the loss of hundreds of thousands of people each year. Nearly one-half million left in 1953 alone. The magnitude of these losses finally forced the government to make "republic escape" a crime in 1957. Annual refugee levels declined markedly thereafter (Table 3.2), only to climb suddenly and steeply as the drive to force collectivization hit full velocity in the first months of 1960. Of the one-quarter-million refugees in 1960, most left in the first part of the year, and almost all of these fled not socialism, but collectivization. (20)

TABLE 3.2 Refugees from East to West Germany

1950	337,300	1956	396,300
1951	287,800	1957	384,700
1952	232,100	1958	226,300
1953	408,100	1959	173,800
1954	295,400	1960	225,400
1955	381,800	1961	214,100

Source: Gustav Stolper, Deutsche Wirtschaft seit 1870, 2nd ed. (Tübingen: J. C. B. Mohr, 1966), table 35, p. 343.

The massive exodus had two important consequences. Quantitatively, it reduced the already depleted labor force still further (Table 3.3). Thus it was necessary to accelerate immediately the planned mechanization of agriculture, requiring large amounts of investment capital and an increase in the purchase of foreign machinery. Qualitatively, the abandonment of the GDR had more ominous implications. First, collectivization was far less acceptable to successful farmers than to poor ones. Hence, the good farmers fled and the less talented remained. This was not, of course, universally true, but true enough so that the nation faced a serious shortage

TABLE 3.3 Selected East German Agricultural Indicators, 1950-1973

Year	Net Crop Output	Net Animal Output	Number of Machines	Ferti- lizer Use	Agricultural Investment	Crop Yield	Animal Yield	Agricultural Workers
1950	3949.5	5661.0	55373	460	----	.605	0.867	1483.2
1951	4030.2	7521.8	76540	439	----	.616	1.149	1483.2
1952	3635.9	8883.4	92896	462	----	.557	1.362	1497.8
1953	3543.5	8058.5	131200	487	----	.544	1.238	1488.4
1954	3738.2	9104.3	161259	543	----	.576	1.402	1523.2
1955	3451.7	9319.9	182748	538	----	.533	1.438	1583.1
1956	3275.6	9581.1	202652	---	----	.506	1.479	1513.6
1957	3925.2	10128.9	215898	618	----	.607	1.567	1460.6
1958	4087.3	10768.9	236896	656	----	.634	1.671	1460.6
1959	3368.4	11078.4	275977	672	----	.524	1.724	1375.7
1960	4195.9	10903.7	405128	677	1929	.654	1.698	1229.6
1961	3038.5	10637.7	475507	712	2187	.474	1.658	1198.9
1962	3525.3	9935.0	516260	695	2121	.552	1.555	1198.9
1963	3534.7	11015.7	550473	782	2396	.555	1.730	1198.1
1964	3564.1	11340.3	583692	934	2360	.560	1.781	1205.1
1965	3831.6	12420.9	612136	1040	2768	.603	1.954	1182.0
1966	3886.0	13099.8	637873	1086	3127	.613	2.066	1160.2
1967	4343.8	13502.3	669325	1062	3365	.687	2.102	1141.6
1968	4172.0	13914.1	701551	1218	3866	.661	2.204	1025.6
1969	3643.5	13809.3	731952	1200	4396	.578	2.191	983.7
1970	3947.7	13876.4	780449	1248	4348	.628	2.208	978.9
1971	4116.6	14044.1	753252	1300	4387	.655	2.234	974.3
1972	4568.0	14829.8	748519	1350	4317	.726	2.357	937.3
1973	4398.2	15407.4	744507	1360	4420	.700	2.451	917.7

Note: Net crop and animal output in millions of East German Marks (MDM) at 1965 prices; Agricultural investment in millions of MDM at current prices; Fertilizer use in millions of MDM at 1965 prices; Crop and animal yield in thousands of MDM per ha. of cultivated land; Agricultural workers in 1,000s.

Sources: Derived and/or calculated from Gregor Lazarek, East German Agricultural Production, Expenses, Gross and Net Product, and Productivity, 1938 and 1950-1970 (Columbia Research Project on National Income in East-Central Europe, Occasional Paper No. 36, 1972); and Statistisches Jahrbuch der DDR, 1957-1974.

of people who were capable of leading the new collectives. (21) Second, collectivization required a different type of farming. Formerly, private farmers had been rural factotums. Now, as collective farmers they were expected to perform a specialized job - whether or not they had any knowledge, training, or even interest in it. (22)

Confusion and Shortages

The total transformation of one-half of the nation's agriculture in just three months threw the food supply and production system into chaos. Supplies and product marketing were in disarray. This might have been solved in a market system comprised of small units; but the GDR had scrapped such a system in favor of total planning and centralization, and now the planners and directors were faced with an overwhelming task of coordination and control. (23) Serious shortages beset the agricultural sector; exponential increases in machinery were needed. Production in domestic plants could in no way meet the targets which were set during the drive to outstrip West Germany in per capita consumption; nor could the nation afford to make up the immediate shortfall with outside purchases. The same dearth of funds made necessary capital investments impossible and precluded a significant increase in the capacity to produce sorely-needed mineral fertilizer. (24)

Morale

There is no question that the forced collectivization in 1960 was a source of serious social upheaval. (25) It probably did as much damage to the legitimacy of the regime in the countryside as the 1953 rioting had done in the cities. The resulting massive emigration is testimony enough, but informal public opinion polling in 1962 also uncovered strong resentment among collective farmers. (26) The public mood was clearly not one which fostered enthusiasm for building socialism in the countryside. This was a significant problem for a regime with little else to offer, and Ulbricht stepped out of character in a 1963 speech to acknowledge the difficulty of collectivization for many farmers and to assuage their resentment. (27)

Production

The most important impact of collectivization was the decline in production that resulted from the flight of hundreds of thousands, and from confusion, shortages, and low morale. Output fell sharply in 1961 and 1962 in virtually every commodity or index of efficiency (Table 3.3). Net total crop output and crop yields fell almost 30 percent from 1960 to 1961. Although output from animal products and animal yields fell less precipitously, both declined almost 10 percent between 1961 and 1962. These are serious losses that do not speak well for the regime's policy of forced collectivization. In fairness, it should be noted that the two years following collectivization were plagued by inadequate precipitation which caused output to fall in West Germany as well, although not nearly as sharply. Seen from another perspective, it is remarkable that the fundamental upheaval created by the regime did not have more drastic after-effects. As Hans Immler notes, there was, surprisingly, no total breakdown and no complete catastrophe, only a significant drop in production. (28) More serious for the GDR and for students of collectivization is the long-term productive impact of agricultural socialism, a matter we attempt now to assess.

THE IMPACT OF COLLECTIVIZATION ON PRODUCTIVITY

East German authorities point with great pride to the levels of productivity which have been achieved in the era of full collectivization. Other analysts have been less enthusiastic, but have acknowledged a solid performance. The United States Department of Agriculture, for example, noted that 1964 and 1965 production was, "in view of the momentous changes during 1960-61, surprisingly like the average level of production during 1955-1959." (29) Pre-collectivization productivity levels were regained relatively quickly and have since been impressively surpassed (Table 3.3). This does not prove that collectivization was a wise decision from a production standpoint; and it is difficult to prove the contrary, since the GDR has virtually wiped out the private sector and releases almost no production figures for the small area of private land that remains. There are, however, indirect ways of assessing post-collectivization performance and its relative efficiency. Two of these are examined here: first, collective agricultural production is compared with past, predominantly private production; and second, GDR agriculture is compared with West Germany and other nations.

Relative Productivity in the Private
and Collectivized Eras in the GDR

Attempting to compare the private and the more recent collective periods of agriculture is complicated fundamentally by the wide variance in inputs between the two eras and the tremendous increase in the application of technical knowledge during the past decade. Thus it is possible to argue, as the GDR does, that data clearly show the collective period to be the more efficient. Indeed, this seems almost self-evident in Table 3.3. Nonetheless, more systematic and detailed empirical studies of the performance of the two modes of production come almost invariably to an opposite conclusion.

Collective agriculture has been more productive in total output, but not in the proportion one might expect from enormous increases in inputs. David Marcinko demonstrated this empirically by using regression techniques and comparing the private and collective periods in the form of a Cobb-Douglas production function. He found "that collectivization certainly did not improve agricultural productivity, and is consistent with a deterioration of productivity." (30) Agricultural output was more efficient in terms of employment levels and operating expenses in the private, pre-1960 era than during the collectivized period.

Production grew at a slower rate after collectivization began than it had during private farming. Broken into five-year segments, Table 4 shows average annual rates of growth for a range of production measures from 1950 until 1970. The first segment, from 1950 until 1954, increased output at several times the rate of later periods. This is accounted for in part by the inevitable recovery from severely depressed production levels of the immediate postwar period. Yet the figures are not, therefore, meaningless, for this was also an era of tremendous shortages of fertilizer, capital, and essential components of production. The output of agriculture in this private phase simply used inputs more efficiently than any later period. There was a one-to-one ratio of increases in inputs to increased output from 1950 to 1954, and this was never again matched. (31)

The second period, from 1954 to 1960, was characterized by slow, and primarily low-pressure, collectivization. Growth in output declined by one-half, but remained reasonably strong. During this period the majority of cultivated land was in private hands. After 1960, of course, no more than 18 percent of the land remained in the private sector. Growth rates declined rapidly from 1960 until 1970, and in a few measures even showed losses from 1965 to 1970. These declines during socialist agriculture were not restricted to one or two categories; they were consistent and included significantly slower growth in indicators of both efficiency and total output.

Hence, the consolidation of socialist agriculture seems to have come at the substantial price of decelerated growth in a critical sector of the national economy.

TABLE 3.4 Growth Rates of Selected Productivity Measures in GDR Agriculture, Selected Periods

	1950- <u>1954</u>	1954- <u>1960</u>	1960- <u>1965</u>	1965- <u>1970</u>	1950- <u>1970</u>
Total Production	6.6	2.6	1.7	0.8	2.2
Crop Production	3.9	1.6	0.8	-0.1	1.3
Animal Production	9.2	3.4	2.4	2.0	3.1
Gross Product in Agriculture	5.7	2.8	1.4	0.4	1.8
Net Product in Agriculture	5.9	2.8	0.9	-0.1	1.5
Total Production per Capita	7.0	3.5	1.9	1.1	2.7
Total Production per Worker	11.3	7.0	2.5	5.8	5.2
Crop Production per Hectare	4.0	1.8	1.0	0.0	1.5
Animal Production per Hectare	9.3	3.7	2.6	2.2	3.3

Note: Rates are average annual percentage rates of increase or decrease. They are calculated from production data in 1965 prices by fitting an exponential curve by the least squares method: $o_t = o_0(1+r)^t$

Source: Adapted from Gregor Lazarcik, East German Agricultural Production, Expenses, Gross and Net Product, and Productivity, 1938 and 1950-1970 (Columbia Research Project on National Income in East-Central Europe, Occasional Paper No. 36, 1972), table 8, p. 25.

International Comparisons

Another indirect, but effective, means of assessing the relative productivity of collectivized East German agriculture is to compare it to equivalent cases of predominantly private systems in other nations. We do so on the basis of objective data, although it should be noted that the United States Department of Agriculture considers GDR output data exaggerated. (32)

The productivity of GDR agriculture is most frequently compared to that of West Germany. This is natural, since the two nations were once

integrated and comparative production data are available over a long period. Indeed, the GDR government most often compares its output with its western neighbor and regularly exhorts its farmers to surpass the West Germans. That this is necessary is symptomatic of the problem which exists for authorities in East Berlin. The GDR should outproduce West Germany. It has always been a more fertile agricultural region; it is organized in larger and, theoretically, more efficient production unit; it invests twice as much capital in agriculture, using more fertilizer and even providing regular assistance from professional agricultural colleges. (33)

Yet in almost every category, the West German private farmers are more efficient and produce better yields than the collective farmers in the GDR. Because West Germany is much larger one would expect it to produce more food than its socialist neighbor - and it does. However, there is no reason to suspect that this relationship should extend to the efficiency of production, including the yield per worker, per hectare, and per animal. In fact, one might justifiably expect the opposite. Before World War II the area which now comprises the GDR was more efficient than what is presently West Germany. As Table 3.5 shows, this relationship changed completely in the postwar era. The GDR now is significantly less efficient than the Federal Republic in several key measures of production; the comparative performance of socialist agriculture has not improved markedly with the entrenchment and stabilization of collective farming. West Germany continues to obtain better production per unit and per worker. The GDR constantly pushes its farmers to meet West German production levels, while the West Germans publicly worry about the problem of surplus agricultural production. (34)

Of course, there are problems inherent in any international comparison. Although West Germany seems to be the best candidate for comparison with the GDR, some analysts have raised objections. Perhaps the most serious of these is that yields are commonly smaller in large-area, large-scale farming, such as that practiced in the GDR, than in small, family farming, such as that in West Germany where every square meter receives personal attention. Therefore, it might be more reasonable to compare the GDR to a nation which shares its scale of production. The United States is such a nation and is frequently cited as an analog. Yet the GDR fares just as poorly (in many categories more poorly) in this arena; it has been shown that the GDR has not achieved the efficiency of the average American private farmer. (35) In fact, while the GDR and Czechoslovakia have impressive production and consumption levels among collectivized nations, East German agricultural productivity stands below the levels of Yugoslavia and Poland: socialist nations which nonetheless maintain predominantly private farming. (36)

TABLE 3.5 East German as a Percentage of West German
Agricultural Productivity

<u>Category</u>	<u>1935/38</u>	<u>1957/61</u>	<u>1965</u>	<u>1970</u>
Crop Yield per Hectare	108	88	96	83
Livestock Yield per Animal	113	80	84	80
Net Food Production per Hectare	107	75	84	68

Source: Adapted from Konrad Merkel, "Neuere Entwicklungen in Produktion und Organisation der DDR-Landwirtschaft im Vergleich zur Bundesrepublik," in DDR Landwirtschaft in der Diskussion, eds. K. Merkel and H. Immler (Cologne: Verlag Wissenschaft und Politik, 1973), table 2, p. 33.

LEGITIMACY AND POST-COLLECTIVIZATION PUBLIC POLICY

The vigorous opposition to collectivization and its subsequent relatively poor performance serve to foster images of widespread discontent and bitter opposition to the GDR's socialist leadership. Not surprisingly, the government does not usually allow the sort of open public opinion research which might test this assumption. However, Hans Apel, an American of German origin, boldly requested permission to tour the nation after the Berlin wall was built. He wanted to travel without supervision and talk freely with whom-ever he met in order to gauge the public's perception of the regime. Did it, for example, square with Western assumptions of hatred and overt repression? For some reason, the GDR acceded to his request. He made three visits and they could hardly have been timed more perfectly to assess the farmers' response to collectivization. His first was in early 1962, almost two years after the forced collectivization and in the wake of two very poor harvests. He expected resentment and bitterness, and he found it. Farmers were generally more critical of the way collectivization had been forced than of their current situation. They did not expect production or conditions to improve. Most of them were characterized by Apel as "opponents" of the regime. The farmers who did not conform to this view were typically the early members of the Type 3 collective farms who had voluntarily opted for

collectivization after failing as private farmers. Only 10 percent of these farmers opposed the regime, in contrast to 80 percent of the former Types 1 and 2 farmers. (37)

Apel returned in 1964, and again in 1966. During these periods, he was able to record a profound change in public opinion. No longer did he encounter such resentment and pessimism. The bitterness had subsided slightly by 1964, and had disappeared almost completely by 1966. Interviewing twenty-six collective farmers in 1966, Apel found no one whom he could describe as an opponent of the system. His previous two trips had revealed opposition among at least 30 percent of collective farmers, and a feeling of ambivalence among another 20 percent. (38)

There are several reasons for this change in attitude. The GDR began to profit from the massive flight which accompanied forced collectivization. The farmers who found emigration preferable to collectivization in 1960 were among the staunchest opponents of the regime's policies. Had they stayed, as they had to do in virtually every other socialist nation, they would have constituted a massive bloc of discontentment. However much Ulbricht detested the depletion of his labor force, he must later have savored it as an ideological purge.

Thus, the GDR's post-collectivization constituency was uniquely benign. It was comprised of farmers who preferred socialism to leaving their land. This is not to say that they favored collectivization; rather, their hostility to it was not virulent and salient. As Apel found, their principal concern was that socialist agriculture could not maintain their accustomed levels of productivity and personal income; and the first two harvests after collectivization seemed to confirm this. However, the regime had been preparing for a new kind of agriculture with a reduced labor force, and by 1963 things began to improve. When these advances continued for two more years, a pattern of confident expectations was established. The important improvements were in the two interrelated areas of gross production levels and personal rewards for farmers. The gains were the product of a vigorous post-collectivization policy which was an integrated and vital component of the entire collectivization process. The regime's goal was to improve production and morale simultaneously. In order to accomplish this, it expanded the supply of production inputs and took significant steps to better the life of farmers.

Increased mechanization and fertilization were critical to increased production and rated a high priority in the economy. Between 1960 and 1965 production of fertilizer increased 40 percent, while combine and tractor manufacturing grew by 300 percent and 150 percent respectively. As Table 3.3 demonstrates, this growth was sustained for the following decade. The correlations in Table 3.6 show clearly that these steps allowed production to grow, even as the agricultural labor force shrank.

TABLE 3. 6 Selected Pearson Correlation Coefficients of Agricultural Indicators, 1960-1973

	<u>Time</u>	<u>Crop Output</u>	<u>Animal Output</u>	<u>Number of Machines</u>	<u>Fertilizer Use</u>	<u>Agricultural Wage</u>	<u>Agricultural Investment</u>
Net Crop Output	.65	---	.73	.52	.65	.67	.57
Net Animal Output	.96	.73	---	.91	.98	.97	.96
Number of Livestock	.91	.57	.86	.81	.85	.91	.88
Number of Machines	.96	.52	.91	---	.96	.92	.96
Fertilizer Use	.98	.65	.98	.96	---	.96	.96
Agricultural Wage	.99	.67	.97	.92	.96	---	.96
Agricultural Investment	.97	.57	.96	.96	.96	.96	---
Total Net Output	.94	.82	.99	.87	.95	.95	.91
Crop Yield	.69	.99	.76	.57	.69	.70	.62
Animal Yield	.96	.72	.99	.92	.98	.97	.95
Worker Yield	.97	.72	.97	.89	.95	.99	.96

Note: All coefficients significant at least at the .05 level, two-tailed.

Source: Calculated from data derived from Gregor Lazarek, East German Agricultural Production, Expenses, Gross and Net Product, and Productivity, 1938 and 1950-1970 (Columbia Research Project on National Income in East-Central Europe, Occasional Paper No. 36, 1972); and Statistisches Jahrbuch der Deutschen Demokratischen Republik, 1957 through 1974.

While this impressed farmers, an increase in their standard of living was obviously more important than improving their productivity. The losses in income which farmers suffered after collectivization in 1961 and 1962 was soon counter-balanced. The earliest and most effective actions were on the wage front. The typical rural family increased its income between 1962 and 1965 by 1,000 to 2,000 MDM. (39) The significant advantage of industrial over agricultural workers began to vanish. Farm wages were only 70 percent as high as industrial earnings in 1955. By 1973 the disparity had been reduced to 2 percent, and, according to the GDR, has now been wiped out completely. (40) The importance of these advances is clear in the relationships shown in Table 6. During the era of collectivized agriculture, crop output ($r = .67$, $s = .005$) and crop yield ($r = .70$, $s = .002$) correlated more strongly with agricultural wages than with any other input factor.

While working conditions have no tangible or measurable impact on productivity, they have clearly improved morale. Collective agriculture meant less, not more, work. Hours were reduced. Gone were the 100-hour weeks of the private farmer in spring and fall, and by 1965 the shorter working hours did not imply less income. The regime no longer needed to use the pressure tactics of 1960 to persuade the farmers to transform their Type 1 farms to Type 2 or Type 3 units. The comment which one Type 1 farmer made to Apel in 1966 is instructive: "We still have 40 members in our LPG I, but half have already gone over to collective livestock. That way you are now scarcely worse off than in private ownership, but the work is so much easier and next year I'll do it too." (41) Incentive, not pressure, accounts for the astounding growth of Type 3 collectives. By 1972, there were five times as many Type 3 farms as Type 1 and Type 2 units combined. (42)

In nearly every way, the government attempts to make life on the farm at least as good as it is in the city. While the Soviet Union pays lip service to this goal, the GDR has virtually achieved it. As recently as 1970, 57 percent of agricultural workers had a technical education. This number has risen rapidly since 1970 and is expected to reach 90 percent by 1980. While the education level of farmers approaches and even exceeds that of urban workers, progress continues in other sectors as well. Rural workers are receiving more adequate housing, medical care, and vacation time, as well as a number of other benefits. (43)

IMPLICATIONS OF THE GDR EXPERIENCE

What can be learned from the GDR's pursuit of collectivization? Is collectivization desirable? There is no simple answer to these questions.

In answer to the first, the GDR's collectivization experience was clearly less tumultuous and more successful than the Soviets'. However, it cannot be transferred easily to Third World nations because the GDR was basically an industrial society with only 20 percent of the labor force in agriculture. As to the second question, the results are clear, yet also ambiguous. It is not difficult to show from a standpoint of pure productivity that collectivization was a mistake. Had the GDR followed Poland's course, it might not now be forced to import such large quantities of feed grains and perhaps it would have achieved even greater efficiency from its shrinking labor force. Nonetheless, production levels have been respectable. The GDR and Czechoslovakia have achieved the highest consumption levels per capita of meat, milk, and other commodities in the CMEA (Council for Mutual Economic Assistance). (44) Further, there is almost no doubt that if the GDR's collective farmers were offered the chance tomorrow to return to totally private farming, a great many would decline. That is not to say that they were or are happy about the forced collectivization, but simply that they are reasonably satisfied with their present situation.

Given these caveats, one can draw some conclusions and recommendations from the GDR experience. On the negative side, it seems a misconceived idea to distribute property in a land reform, only to collectivize it later. This tactic backfired badly in the GDR when the newly-landed private farmers achieved an impressive rate of success on their tiny grants of earth. Neither taxes nor incentives were able to recruit a substantial proportion of private farmers. There seems to be no easy means of truly voluntary collectivization in the absence of ideological fervor at the grass roots.

On the positive side, several policies stand out. The decision to ease the transition to socialism with three separate types of farms worked well and probably kept bitterness to a minimum. The regime's firm support and generous supply of inputs in the years following collectivization greatly lessened resistance when Type 1 and 2 collectives were admonished to become Soviet-style, Type 3 farms. In fact, the supportive aspects of the post-collectivization policy have positively transformed the countryside; many of these might well be applied in the West.

This chapter closes with two rather unorthodox observations. First, in the long run it seems to have been a good idea to force collectivization before the national borders were finally sealed. The regime lost thousands of valuable workers, but minimized the number of potential malcontents and troublemakers. Second, and admittedly facetious, it would be convenient for any Third World nation contemplating collectivization to have a German population. Farmers of few other cultures could have endured the truly cataclysmic structural, political, and socioeconomic transformations over the last half-century and maintained so stable a level of production and efficiency.

NOTES

- (1) See, for example, "Kollektivierung: Der siebente Unterschrieb", Der Spiegel (March 23, 1960): pp. 35-40; U.S. Department of Agriculture, Economic Research Service, Regional Analysis Division, The Agricultural Situation in East Germany, 1961, pp. 23-24.
- (2) See Mathias Kramer, "Die Landwirtschaft in der SBZ: Produktionsmöglichkeiten und Produktionsergebnisse," in Bonner Berichte aus Mittel und Ostdeutschland (Bonn: Bundesministerium für Gesamtdeutsche Fragen, 1951), pp. 32-33.
- (3) For a fuller discussion of the land reform, see Gustav Stolper, Deutsche Wirtschaft seit 1870, 2nd ed. (Tübingen: J.C.B. Mohr, 1966), pp. 222 and 345; Hans Immler, Agrarpolitik in der DDR (Cologne: Verlag Wissenschaft und Politik, 1971), pp. 29-34; for a somewhat different perspective, see Thomas T. Hartmann, Die Kooperation in der sozialistischen Landwirtschaft der DDR (Berlin: Duncker & Humblot, 1971), pp. 42-45.
- (4) Immler, op. cit., pp. 35-36.
- (5) Ibid., p. 38.
- (6) Ibid., p. 39.
- (7) See "Kollektivierung"; Hans Immler, Arbeitsteilung, Kooperation, und Wirtschaftssystem: Eine Untersuchung am Beispiel der Landwirtschaft in der BRD und in der DDR (Berlin: Duncker & Humblot, 1973), p. 133; Immler, Agrarpolitik in der DDR, p. 46.
- (8) Actually, the authorities were in a dilemma. If they failed, the ideological victory of collectivization could be easily won. But if they succeeded, the nation would be guaranteed sufficient food and the economy would grow.
- (9) See Hans Apel, DDR: 1962, 1964, 1966 (Berlin: Voltaire Verlag, 1967), p. 109.
- (10) Stolper, op. cit., p. 345.
- (11) Ibid., p. 346.

- (12) See Richard L. Merritt and Ronald A. Francisco, "The SPD of East Berlin, 1945-1961," Comparative Politics 5:1 (October 1972): 7-9.
- (13) Quoted in Hartmann, Die Kooperation in sozialistischen Landwirtschaft, pp. 44n-45n.
- (14) Thomas A. Baylis, The Technical Intelligentsia and the East German Elite (Berkeley: University of California Press, 1974), p. 194.
- (15) Ibid., p. 227.
- (16) See ibid., chapter 8.
- (17) "Refugees Crowd a Camp in Berlin," New York Times, April 22, 1960, p. 3. Police tried to inhibit movement to Berlin, the site of escape.
- (18) See Baylis, op. cit., pp. 228-229.
- (19) Ibid., pp. 229-230.
- (20) See "More East Germans Leave," New York Times, June 1, 1960, p. 3.
- (21) Hartmann, op. cit., p. 56.
- (22) Ibid., p. 59.
- (23) Immler, Arbeitsteilung, pp. 134-135.
- (24) Hartmann, op. cit., p. 59.
- (25) See Baylis, op. cit., p. 126.
- (26) Apel, op. cit., p. 113.
- (27) From text of the speech published in Karl C. Thalheim, Die Wirtschaft der Sowjetzone in Krise und Umbau (Berlin: Duncker & Humblot, 1964), p. 148.
- (28) See Immler, Agrarpolitik in der DDR, p. 49.
- (29) U. S. Department of Agriculture, Economic Research Service, The Eastern European Agricultural Situation, 1965, p. 24.

- (30) David J. Marcinko, 1976, "Total Factor Productivity and Collective Agriculture in East Germany," paper presented at the meeting of the Eastern Economic Association, p. 7.
- (31) Gregor Lazarcik, East German Agricultural Production, Expenses, Gross and Net Product, and Productivity, 1934-38 and 1950-1970 (Columbia University Research Project on National Income in East Central Europe, Occasional Paper No. 36. 1972), p. 24.
- (32) U. S. Department of Agriculture, The Agricultural Situation in East Germany.
- (33) See Martin Schnitzer, East and West Germany: A Comparative Economic Analysis (New York: Praeger, 1972), pp. 367-370.
- (34) See Immler, Agrarpolitik in der DDR, pp. 87-93.
- (35) See *ibid.*, p. 95.
- (36) Lazarcik, *op. cit.*, p. 26.
- (37) See Apel, *op. cit.*, pp. 113 and 267.
- (38) See *ibid.*, p. 310.
- (39) *Ibid.*, p. 313.
- (40) These are published wages in state farms. Collective farm wages vary from collective to collective according to productivity. Estimates place mean collective wages just below state farm levels, though in individual cases they may be much higher. See Hans Immler, "Die Landwirtschaft in der DDR: Kurze Einführung," in DDR Landwirtschaft in der Diskussion, eds. Konrad Merkel and Hans Immler (Cologne: Verlag Wissenschaft und Politik, 1972). p. 16.
- (41) Apel, *op. cit.*, p. 312.
- (42) Kurt Sontheimer and Wilhelm Bleek, Die DDR--Politik, Gesellschaft, Wirtschaft (Hamburg: Hoffman und Campe, 1972), p. 214.
- (43) See Hans Immler, "Hat die DDR die Bundesrepublik schon überholt, Thesen zur Agrarpolitik in der DDR," in Merkel and Immler, eds., DDR Landwirtschaft in der Diskussion, pp. 43-70; Immler, Agrarpolitik

in der DDR, pp. 186-197; and Erich Honecker, "GDR Agriculture 30 Years after Land Reform," German Democratic Report, September 24, 1975, p. 131.

- (44) Andreas Kurjo, Agrarproduktion in den Mitgliedsländern des RGW (Berlin: Duncker & Humblot, 1975), p. 99.

4

Kulakization of Polish Agriculture

Jaroslav A. Plekalkiewicz

The Communists fight for the attainment of the immediate aims
. In Poland they support the party that insists on an agrar-
ian revolution as the prime condition for national emancipation

Karl Marx and Friedrich Engels
Manifesto of the Communist Party

COLLECTIVIZATION: TO BE OR NOT TO BE

The question of whether collectivized agriculture is inherently less efficient than private agriculture conducted in an identical context cannot be resolved with any certainty. The answer to this question will, first of all, depend on the definition of efficiency, which cannot be divorced from the total political, economic, and social system. Efficiency for what?

Should we consider only "the growing problem of world hunger," then our definition would probably concentrate on the ability of one or the other system of organization of agricultural production to increase the supply of food. However, even then the question remains: what would be the cost of such an increase in terms of economic inputs as well as its impact on the whole political, social, and economic system? Should the efficiency of output be calculated in terms of its potential nutritive value or its market value? Indeed, agricultural systems, private or collectivized, are seldom influenced by altruistic concern for "world hunger," but one could argue that a collectivized and centrally-controlled system could be more easily directed to produce yields of higher nutritive content.

Perhaps in the last analysis the efficiency of production is not dependent on ownership, collective or private, but on the optimum size of the farm in relation to available inputs such as soil, labor, mechanization, and fertilizers, and desirable outputs such as grain, meat, dairy products, fruits, and vegetables. There is considerable evidence that modern technology, which produces the maximum utilization of resources, cannot be employed on small, dwarf-size farms. The small farm must use some of its gross output for feeding work animals since it cannot afford the utilization of a tractor; it also "wastes" proportionally more land for farm buildings. In most cases the decision to increase the size of farms to the optimum must be made in a society characterized by a large number of small agricultural units. Collectivization is the only practical option, especially if the society lacks the capital to form larger private farms and cannot provide sufficient employment outside of agriculture for the displaced farmers.

The second proposition which puts forth that the way in which collectivization is carried out affects the future productivity of agriculture and has an impact upon political stability and legitimacy, provides less of a problem than the first. The lessons of Soviet collectivization cannot be disputed; the effects of that policy on the immediate and long-term decline in agricultural production were disastrous. However, one should consider the overall short- and long-term effects of collectivization relative to other possible solutions, especially in connection with efficiency. What would be the productivity and stability had collectivization not been undertaken? Would the countries which embarked on collectivization be better off had they persisted in private and dwarf farming? The answers to these questions cannot be given in a void, but must take into account the fact that collectivized agriculture operates in socialist countries in the framework of planned and centrally-directed economies. Can a small, private farmer deal with the large bureaucracy and marketing organizations which are part of a centralized state administration? Perhaps only a large farm - a collective - can be effective and hence relatively efficient in such a milieu. Finally, the political system which is committed ideologically to the socialization of all sources of production can ill afford to permit one sector of the economy to persist in private ownership. Ultimately its legitimacy to rule, which derives from its monistic ideology, would be undermined, affecting its other vehicles of political control and thus contributing to general political instability.

One becomes clearly aware of all the problems which the two propositions raise in the context of Polish agriculture as it relates to the general political, social, and economic system of that country. Poland and Yugoslavia are unique within the communist states for their failure to collectivize. Because Poland formally and effectively belongs to the Soviet-dominated sphere, it is even more deviant than Yugoslavia. The fact that agriculture

in Poland is predominately private permits us to examine the question of collectivization from the other side of the fence. How well or how badly does private agriculture perform in a socialized economy and under the communist political system? What is the price of not collectivizing? Any understanding of how Polish agriculture fits or does not fit into the Polish system must begin with a review of the reasons for the failure of collectivization. This failure became institutionalized in the entire Polish social context and, as such, cannot easily be reversed through one more attempt at collectivization.

COLLECTIVIZATION FAILURE

The reasons why the Polish Communist Party did not socialize the countryside are many and complex. None explains completely why Polish agriculture remained private while other East-Central European countries, in which the circumstances were, at least, similar, completed the collectivization. Perhaps the adverse conditions present in other countries did not accumulate with such a force as they did in Poland. Poland is the largest country in East-Central Europe, and its size may have been an important factor. Nevertheless, had the Polish Communist Party been absolutely committed to collectivization, and had the Soviet Union been prepared to exercise more determined pressure, Polish agriculture would have been collectivized.

Throughout its history the Polish Communist Party did not develop a comprehensive and effective program for the peasant masses. (1) During its formative years prior to 1918, the Party was under the strong influence of Rosa Luxemburg, who considered the peasantry a backward social class without any revolutionary potential. Important also was the Luxemburgists' dispute with Lenin and their fear of Lenin's dictatorial tendencies, which they saw as a complete denial of proletarian democracy. They rejected the Leninist concept of the worker - peasant alliance - and argued for "pure" proletarian revolution. (2) This original stand has influenced the behavior of the Party to this day and has made it somewhat of a maverick within the Soviet-dominated communist movement. The Polish Party constantly attempted to maintain its independence, often with disastrous results to its policies and its leaders. It is no wonder that it was dissolved by the Comintern in 1938 and that most of its outstanding personalities perished in the Stalinist purges.

However, the impact of the Party on pre-war Polish political and social life was minimal. Its membership never exceeded 20,000; (3) and its doctrinaire worker-oriented program never seriously appealed to the masses,

most of whom were peasants. Even the workers were alienated from the Party because it sided with the Soviet Union, which most Poles regarded as an extension of the hated Russian Empire. In 1920 when the Soviet Union invaded Poland in order to "liberate" the people, the Polish Communist Party expected the masses to join the revolution; instead, they flocked to the Polish Army to defend their newly achieved national independence. In 1939 the Ribbentrop-Molotov pact strengthened public opinion that the Polish Communist Party was a traitorous organization; this pact, between Nazi Germany and the Soviet Union brought about the fourth partition of Poland.

During the initial two years of the German occupation, the communists were leaderless, partyless, and confused. If they were not absolutely loyal to the Soviet Union, they nevertheless remained dormant while the rest of the nation began a conspiratorial campaign, and eventually an armed struggle, against the Nazis. In the Soviet zone of Poland the occupation was not less brutal than in the German zone; many Poles were shipped to concentration camps or exiled to Siberia. Included among these prisoners were a number of pre-war communists whom the Soviets did not trust, perhaps with good reason. (4)

The Nazi attack on the Soviet Union, in 1941, awoke the Polish communists and threw them into a frenzy of organizational activity. The Party was reestablished under the more neutral name of the Polish Workers' Party, no doubt because it was realized that most Poles had animosity toward the word "communist." Eventually the Party was able to build a modest membership network and form some guerrilla units. In Moscow, the pro-Soviet Union of Polish Patriots was created and gradually it established a Polish army under the Soviet command from the Poles who found themselves on the Soviet soil, many released from concentration camps. Under the German occupation the communists were themselves at a considerable disadvantage. During their dormancy the field was monopolized by nationalist forces, which built an extensive underground political and military organization (Home Army - A. K.) loyal to the Polish government-in-exile residing in London. Most of the Poles remained distrustful of their newly acquired "ally," the Soviet Union, and the communists whom they considered its agents. The pre-war factionalism continued among the Party members, now accentuated by the rift between the Moscow and the home-grown leaders. (5) The policies of the Party, and especially its armed struggle against the Germans, were easily presented by the nationalists as subject to Soviet demands rather than in the best interest of the Polish nation. In fact, while the nationalist forces carefully considered the impact of their activities on the Polish population, the communists were often promoting wanton terror against the Germans, whose mass murder response fell on ordinary Poles. The communist policies were designed to help the Soviet war effort by increasing the level of violence, already threatening the biological survival

of the Polish nation, in an attempt to engulf the whole country in an armed uprising against the Germans. (6)

The Soviet army entered pre-war Polish territory in the wake of the fleeing Germans. Initially it cooperated with units of the Polish Home Army. However, it disarmed and interned them as soon as hostilities were over in any given region. A similar double-standard policy was followed in Warsaw; enticed by Soviet propaganda, the population rose up against the Germans only to find itself at the Germans' mercy when Soviet troops withdrew from the city. (7) Those policies reaffirmed hatred for the Soviets to the degree that some Poles were prepared to engage in armed opposition to the Soviet and Polish communist domination. What resulted, in fact, was a virtual civil war, lasting until 1949. (8)

In addition to the armed struggle, the communists were faced with opposition by the Polish Peasant Party, led by the popular ex-Prime Minister of the Polish government-in-exile, Stanislaw Mikolajczyk. The Polish Peasant Party entered the post-war provisional government with Mikolajczyk occupying the position of Deputy Prime Minister, but refused to join the communist-dominated front of National Unity. The Peasant Party no doubt commanded the support of the majority of the population, the results of the eventual communist-controlled elections notwithstanding, and it was especially strong in the countryside. (9) Polish peasants, not very active politically before the war, became highly politicized during the occupation. They were the food producers and food was the most essential commodity to the Germans and to the survival of the Polish nation. Battles between the Poles and the Germans were often over agricultural output, and those battles put the peasants into the forefront of national importance. Furthermore, the shortage of food increased the peasants' relative economic prosperity compared with that of the urban population. (10) During the war the Peasant Party experienced a substantial growth in its political vitality. (11) After the war peasant support became crucial to both sides in the struggle between the Polish Workers' Party and the Peasant Party. Both Parties advocated a long-overdue land reform which would divide large estates among landless peasants and those with small holdings. To embark on a policy of collectivization at that time would have been suicidal to the communists who were already hindered by the peasants' suspicion that they would be forced into collectivization. The Polish nation and Polish peasants were well-informed of the experiences with collectivization in the neighboring Soviet Union.

Collectivization was also unrealistic because of the shift of the Polish territory from east to west and the resulting transfer of population. For political and economic reasons, it was imperative that the newly-acquired ex-German territories in the west be settled quickly by a substantial Polish population. The international status of those lands was ambiguous; only a

large population could create a permanency of Polish western acquisition. Understanding that, the Polish government, under the personal leadership of the First Secretary of the Polish Workers' Party, Wladyslaw Gomulka, did not spare efforts to populate the west. Naturally, peasants had to be lured to permanency of settlement by grants of private land larger than the farms in the rest of the country. Initial settlement was sparse and chaotic; many individuals simply grabbed for themselves the property of the expelled Germans. (12) Under those circumstances collectivization technically was not possible. However, post-war communist leadership in Poland was not committed to collectivization, at least not collectivization by force, and not in the immediate future. Gomulka propagated "a Polish road to socialism" which was to be consistent with the Polish national tradition; he envisioned a voluntary acceptance of socialism as the superior and just system and he argued that the Soviet experience was only tentatively applicable to Polish post-war reality. (13)

Despite lofty pronouncements of the "Polish road to socialism," the Peasant Party was crushed by terror against its leaders and members. (14) Merging with the weaker socialists, the Polish Workers' Party assumed the hegemony of power by 1948. The Party itself, which grew from a few thousand members to over a million, was far from a disciplined organization of dedicated communists. The individuals with an ideological commitment were decisively a minority in the Party ranks, and even these split into factions representing different traditions of the Polish left and the divisions between the Muscovites and the native communists. The rest of the membership came either from a socialist or peasant-populist background or joined for pragmatic reasons which often had little to do with Marxism-Leninism. (15) Neither the Party leadership nor its membership contemplated collectivization with any marked zeal.

The year 1948 was a turning point in the politics of East-Central Europe. The split between the Soviet Union and Yugoslavia, the communist coup in Czechoslovakia, and the growing Cold War meant the end to free experimentation with socialism and the beginning of Stalinization expressed in faithful imitation of the Soviet political, economic, and social model. Poland was not to be an exception. The proponents of the "Polish road to socialism," including the First Secretary of the Polish United Workers' Party, were purged and imprisoned after being accused of "rightist deviation." Stalinism meant, among other things, a drive for collectivization of agriculture. One of the accusations against Gomulka and his supporters was that they did not recognize the validity of the class struggle in the countryside and they were heedless of the division between poor and rich peasants to the degree that, in some circumstances, they favored the kulak elements. The announcement of the collectivization drive "crowned a long series of programs, amendments, disclaimers and denials, charges and counter-

charges, crises, and purges that had characterized the agricultural policy of KPP (Communist Party of Poland) since its origin in 1918." (16) Essentially, the post-purge Party leadership assumed that collectivization would be easily achievable on a voluntary basis and "visualized the peasants as waiting in line to organize the cooperatives." (17)

It was shocked by the stony opposition by all peasants, rich and poor; and, at the same time it was unwilling and unable to use the extreme coercive methods of the Soviet experience. The previous ambivalence towards collectivization, the leadership's ideological blindness toward peasant attitudes, and the honest desire to collectivize on a voluntary basis contradicted the necessity to achieve quick results demanded by the Soviets. This confusion resulted in a stream of conflicting instructions being issued to local Party cadres, who became utterly bewildered as to the existing Party line on collectivization. In view of this, the speed of collectivization in different regions depended on the cadres' personal readings of the winds blowing from Warsaw. (18) In those circumstances it was not surprising that collectivization did not produce spectacular results; there were only slightly over 10,000 collective farms by September 30, 1956, (19) in comparison to over 3 million private farms. (20) Of the collectives, 99.2 percent were below 20 hectares in size; 34.8 percent were less than 5 hectares; and 13.9 percent were less than 2 hectares. (21) Most of them were not really optimum units of agricultural production.

The death of Stalin and the resulting decline in Soviet control of East-Central Europe slowed down the Polish collectivization drive, but did not stop it. It continued on its own momentum together with the rest of the Stalinist system as if the shadow of the dead man still dominated the Polish scene. When that system collapsed in the Polish October Revolution of 1956, the former First Secretary, Wladyslaw Gomulka, was brought back to prominence. The initial disintegration of the political power of the Polish United Workers' Party meant immediate dissolution of most of the collectives; their number declined from 10,510 to only 1,534. (22) The Polish peasants voted "with their feet" for private agriculture, and from then on that became the predominant feature of the Polish agricultural scene.

KULAKIZATION

The 1956 "resurrection" of Wladyslaw Gomulka as the national hero if for no other reason than that he had been a prisoner under Stalinism, saved communism and prevented Poland from deteriorating to the Hungarian level, where no doubt it would have met with equally brutal Soviet military

intervention. However, it did not cure the structural ills of the Polish system, although Gomulka at first commanded wide support among all sectors of the population.

The reasons for the 1956 explosion were as much political as economic, and the two were closely interrelated. The communization of Poland, as it did in the rest of East-Central Europe, produced economic development characterized mostly by the construction of heavy industry at the expense of investment in the consumers' goods industry, agriculture, services, housing, and the general infrastructure. The result was a lop-sided economy with developed heavy industry amidst the most primitive agriculture, transportation, and communication. Adding to the Polish economic difficulties was the fact that Poland lacked the necessary natural resources for iron and steel industry and had to import the raw materials from the Soviet Union, making production of those products on a large scale economically inefficient and creating a permanent economic dependency on the Soviet supply. The development of the chemical industry based on ample local raw material was singularly neglected.

In the post-Stalinist period communist leadership, unable to mobilize human resources by coercion, had to rely increasingly on economic incentives. This forced the leadership to pay closer attention to the general well-being of the population. The direction of the Polish economy had to be switched from an emphasis on the development of heavy industry to the sectors which were designed to satisfy the growing appetites of consumers. (23) Agriculture was to play a major role in these new policies. First of all, the constant increase in the standard of living, to which now the Party was unequivocally committed, meant an increase in the demand for agricultural products aggrandized by the post-war rapid growth of the Polish population. The nation had a population of less than 24 million in 1946; this number increased to nearly 30 million by 1960; and it was well over 33 million by 1974. (24) Because it had been neglected and because of its structural deficiencies, national agriculture could not cope with the growing internal demand for its output. Shortages had to be covered by imports, which more than doubled between 1955 and 1960, and tripled between 1960 and 1974. (25)

The initial industrialization drive of the 1950s brought rapid increases in the national income because it employed considerable existing reserves of resources. Apart from the rebuilding of war damages, government policy concentrated on construction of new plants and neglected renovation and improvement of old industry. As the economy developed, its complexity increased and shortages of resources appeared which required more sophisticated management and planning. Also, by the 1960s Polish industry began to grow "old" and it became imperative to replace obsolete pre-war and even the post-war machinery, plants, and the methods of production.

The size and complexity of industry overloaded the existing, neglected infrastructure, which no longer could cope with the shipment of raw materials and outputs or transmit the necessary volume of managerial communication. Continued economic growth became dependent on the modernization of Polish technology which could prevent a larger and larger share of the national income from being "wasted" on repairs and breakdowns. Another imperative was the rapid construction of expanded transportation and communication systems. Furthermore, the reliance on incentives, and hence commitment to the constant increase in the standard of living, necessitated building new consumer-oriented industries in chemicals, housing, textiles, and food processing. Crucial also to further economic growth was the elimination of waste and extensive reserves, both of which were the result of the low productivity of labor. (26)

New technology was required. This could not be developed in Poland or imported from other socialist countries to any large extent. The bulk of it had to come from the West. In the latter 1960s Poland substantially increased its importation from the European Economic Community and the United States. Between 1960 and 1974 Poland increased its metallurgical imports by 12 times; its electrical imports by 14 times, and its chemical imports by 10 times. (27) Naturally the imports, even if covered by initial loans, eventually had to be paid for by exports. However, because of outmoded technology and carelessness of labor, Polish industrial goods could not compete in quality in Western markets. Also, Poland lacked a developed marketing organization and commercial contacts for a more aggressive sales campaign. Despite efforts to attract Western customers, the most acceptable exports remained raw materials and food, mostly meat and processed foodstuffs. Expansion of the production of brown coal, a traditional Polish export commodity, could be achieved without a massive investment in new mines. It was thought that an increase in food exports could be reached more quickly. The increase in agricultural production could have accomplished two goals at the same time: the increase in grain output would have decreased Polish imports of that commodity; and the increase of meat production would have increased the export potential. Together, they could have contributed substantially to the improvement of the Polish balance of payments, and freed capital for the importation of needed technology.

Gomulka's leadership rationalized that part of the food products required for export could be "saved" from internal consumption. Although food prices were comparatively low, not having followed the increase in wages, Polish households spent 45 percent of their budgets on food. (28) There was little else to purchase or to save for since consumers' products were overpriced and in short supply. The low prices of food no doubt contributed to over-indulgence and to considerable waste. On December 12,

1970, the government raised the prices of basic foods between 10 and 60 percent and decreased prices of manufactured consumer goods by about 10 to 15 percent. (29) At the same time the system of norms and incentives was revised to increase the productivity of labor. The decisions, while economically sound, were a political disaster. The resulting uprising of workers brought down Gomulka's administration, which was replaced by that of Edward Gierek.

The options left to the new Secretary were singularly limited. Because of continued unrest, he had to pledge a two-year freeze on food prices and increase wages as an incentive for better productivity. In order to prevent inflation and shortages, he also had to maintain the drive for modernization of industry and expansion of consumers' goods industries and housing. Nor could the building of adequate transportation and communication systems be neglected. All these amounted to the continuous necessity for importation of Western technology, which could be paid for only by a few Polish exports. The second attempt to raise food prices in June 1976 again met with riots and again the administration hastily retreated. The only option that remained was to improve agricultural production.

Calculating the efficiency of private versus collective and state agriculture presents serious problems. Collective agriculture contributes only 2.3 percent of the total agricultural production, and hence it remains a curiosity on the Polish agricultural scene. The state farms supply only 16.6 percent of the total production and cannot be considered on a par with private farming, which supplies 79.7 percent. (30) Yields for state agricultural holdings are generally higher in the four cereal grains than for private farms, but not in a spectacular way; and the yields for potatoes and sugar beets, labor-intensive crops, are higher on private farms (Table 4.1). The recent improvement of yields (1971-75 averages over 1966-70 averages) was more pronounced on state farms, which indicates that they could respond more quickly to meet the growing demands for agricultural production. State farms are behind collectives but ahead of private farms in raising cattle. Collectives also lead the way in pig production, followed by private and state farms, respectively (Table 4.2). Examination of gross outputs suggests that the state farms are less subject to fluctuation of production due to climatic conditions than private farms. During the prolonged drought of 1973-75 their growth rate of total production declined more slowly than that of private farming (Table 4.3). However, a closer look at these figures shows that, while state farms saved their total output of animal production during the drought, the decline in plant production was faster than on private farms. Apparently the private farmer is forced to decrease his animal herd as soon as he is not able to produce his own fodder, while the state farm depends much more on commercial feeds and is more likely to have greater reserves.

TABLE 4.1 Yields of Selected Crops

	<u>1966-1970</u>	<u>1971-1975</u>
	<u>Yearly Averages</u>	<u>Quintals per Hectare</u>
State Holdings		
Four Cereals	21.5	29.0
Wheat	23.7	30.8
Rye	18.3	26.6
Barley	23.4	30.0
Oats	21.3	27.1
Potatoes	168	171
Sugar Beets	296	272
Private Holdings		
Four Cereals	20.0	25.0
Wheat	23.1	27.7
Rye	18.3	22.8
Barley	22.9	28.2
Oats	20.5	24.3
Potatoes	176	178
Sugar Beets	328	318

Source: Poland, Statistical Data (Warszawa: Central Statistical Office, 1976), p. 40, Table 49.

On balance, the state farms are slightly more efficient in terms of yields, with the exception of the more labor-intensive products such as potatoes, sugar beets, and pigs. In terms of fertilizer used, the cost of these higher yields is large. Over a period of fifteen years, state farms have used, per hectare, more than double the amount of fertilizers in all categories but lime, and the use of lime has nearly doubled since 1969-70 (Table 4.4). Because of controlled prices, which do not reflect either the real cost of fertilizer or agricultural outputs, the net cost of this input is impossible to calculate. Also the question arises whether the reason for the lower use of fertilizers by private farmers is due to their unwillingness to use them or their inability to obtain the necessary supplies. The latter

TABLE 4.2 Livestock per 100 Hectares of Agricultural Land (1975)
(In Heads)

<u>Farm Ownership</u>	<u>Cattle</u>	<u>Pigs</u>	<u>Horses</u>
State Holdings	76.4	83.5	1.5
Co-operative Holdings	80.9	137.1	1.2
Private Holdings	68.4	111.9	14.4

Source: Poland, Statistical Data, 1976, p. 40, Table 50.

TABLE 4.3 Growth Rate of Agricultural Production
(Previous Year = 100)

<u>Farm Ownership</u>	<u>Year</u>	<u>Total</u>	<u>Plant</u>	<u>Animal</u>
State Farms	1971	106.6	105.0	109.4
	1972	109.9	107.9	113.1
	1973	110.9	107.5	116.2
	1974	106.6	105.0	109.0
	1975	100.3	96.5	105.6
Private Farms	1971	103.5	101.0	106.5
	1972	111.7	111.1	112.5
	1973	106.6	106.5	106.8
	1974	100.5	98.5	102.8
	1975	96.9	97.5	96.3

Source: Maly Rocznik Statystyczny (Warszawa: Glowny Urzad Statystyczny, 1976), p. 139, Table 2.

TABLE 4.4 Consumption of Fertilizers in Terms of Pure Ingredient

<u>Specification</u>	<u>1959/60</u>	<u>1969/70</u>	<u>1974/75</u>
	<u>Kgs. per Hectare of Agricultural Land</u>		
State Agricultural Holdings:			
Chemical Fertilizers	66.5	206.6	310.8
Nitric	18.0	70.2	103.9
Phosphoric	16.3	52.6	83.3
Potash	32.2	83.8	123.6
Fertilizing Lime	54.6	153.7	197.2
Cooperative Farms and Private			
Agricultural Holdings:			
Chemical Fertilizers	32.5	109.4	154.9
Nitric	11.6	35.0	50.9
Phosphoric	7.8	26.7	38.9
Potash	13.1	47.7	65.1
Fertilizing Lime	6.7	80.1	104.8

Source: Poland, Statistical Data, 1976, p. 41, Table 53.

was the more likely explanation. Until recently there has been a considerable shortage of mineral fertilizers and the state and cooperative farms clearly have been favored by law, Party policies, and the bureaucracies of the supply institutions. Traditionally, these institutions prefer to deliver larger quantities and are subject to pressure by the relatively influential state farm manager. In the last fifteen years the supply of fertilizers has increased nearly three times, from 1.282 million tons in 1960 to 3.276 million tons in 1975. (31) Now the government claims that the reluctance of private farmers to use them is the real cause of their low application, and farmers are forced to take fertilizers as part of their payment for contractual deliveries. However, farmers counter with a claim that the supplies do not always match their particular fertilizer needs and that the deliveries are often not on time. (32) Again there is a conflict between the bureaucracy of the socialist state and the private producer who finds it more difficult to obtain a desired response than the politically-influential manager of the state farm.

One of the reasons why the Polish communist leadership was not overly eager to collectivize was that private agriculture provided a large source of employment. Poland experienced a very rapid post-war population growth and had an oversupply of labor. This was in contrast to the neighboring socialist countries where there were labor shortages. About 600,000 new jobs had to be created in Poland every year. (33) This contributed to the relatively low productivity of labor and, with increasing investment intensity, it produced a heavy demand on the economic resources in terms of investments, inflationary pressure, and consumer goods shortages. Keeping a large segment of the population employed in private agriculture relieved the rest of the economy from the necessity of creating more jobs. In 1975, 4.2 million people out of the total labor force of 16.9 million, or 24.9 percent, were still employed in private farming. (34) This meant .2 employees per hectare in socialized agriculture as compared with .3 persons per hectare in the private sector, or about 33 percent more labor intensity in private than in socialized agriculture. (35) Considering the generally higher yields on the state farms, labor inputs in private agriculture were on the whole less cost effective.

In terms of pure economic efficiency, Polish agriculture compares unfavorably with that in countries of similar climatic and soil conditions. When compared with socialized agriculture in Czechoslovakia and the German Democratic Republic (GDR) and private ownership in Poland and the Federal Republic of Germany (FRG), Poland has the lowest yields per hectare of wheat, rye, barley and sugar beets; and its yield of potatoes is greater than only that of Czechoslovakia (Table 4.5). The FRG maintains nearly twice as many cattle as Poland on a hundred hectares of productive agricultural land, 107.0 to 67.6, and one and one-half times as many pigs, 152.3 to 111.6. In the latter production, the GDR surpasses Poland and the FRG with 172.5 pigs per hundred hectares. (36)

The relative inefficiency of Polish agriculture is not the result of private, collective, or state ownership, but of predominantly dwarf farming: 65.5 percent of all private farms are under 5 hectares and only 11.2 percent are viable farms of over ten hectares (Table 4.6). In addition, many Polish farms are composed of small strips, sometimes kilometers apart. This is the result of the inheritance custom which gives each offspring a share of land of equal value. Since the population of Poland grew rapidly and since families have been traditionally more religious and prolific, dwarf farming increased from 64.8 percent in 1970 to 65.5 percent in 1975 (Table 4.6) despite the considerable outflow of rural population to urban and industrial employment. In fact, the post-war pattern of peasant land holdings did not alter markedly in comparison with the pre-war one, contrary to expectations engendered by the post-war land reform and the settlement of the new provinces in the West (Table 4.6). This is not to say that the

TABLE 4.5 Yields per Hectare (1974)

<u>Country</u>	<u>Wheat</u>	<u>Rye</u>	<u>Barley</u>	<u>Potatoes</u>	<u>Sugar Beets</u>
Czechoslovakia	39.7	30.7	38.9	162	395
German Democratic Republic	43.3	30.6	43.9	211	296
Federal Republic of Germany	47.6	36.1	42.3	309	439
Poland	31.7	25.1	31.8	181	295

Source: Maly Rocznik Statystyczny, 1976, pp. 335, 336, 338, Tables 46, 47, 49.

TABLE 4.6 Size of Private Farms

Size of Farm in Hectares	Farms						Agricultural Land*	
	1921	1970	1971	1972	1973	1974	1971	1974
			(In percent)					
Below .5	34.0	13.6	13.9	14.2	14.7	15.1	.6	.6
.5 - 2		23.9	23.7	23.8	24.0	24.1	6.3	6.5
2 - 5	30.7	27.3	27.1	26.8	26.6	26.3	20.6	20.6
5 - 7	22.5	12.3	12.2	12.1	11.9	11.7	16.3	16.1
7 - 10		12.1	12.1	12.0	11.7	11.6	22.6	22.0
10 and Above	12.8	10.8	11.0	11.1	11.1	11.2	33.6	34.2

* Agricultural Land was derived from total area by subtracting from it forest, marshes, land under buildings and roads, and other land unsuitable for agricultural purposes.

Source: Maly Rocznik Statystyczny, 1976, p. 156; and for 1921, Andrzej Korbonski, Politics of Socialist Agriculture in Poland, 1945 - 1960, p. 20.

standard of living of the peasant masses did not improve. The continuous demand for agricultural products and the favorable prices maintained by the government to stimulate production introduced a good degree of prosperity to the agricultural community, although it did not completely eliminate rural poverty.

Dwarf farming cannot be efficient. With the exception of market gardening or flowers or fruit production, it is subsistence farming; the family produces a variety of crops and animal products intended first of all for its own use. Without specialization, it is no wonder that productivity is low. Also, small farms naturally utilize larger portions of the total land holdings for "non-productive" purposes such as housing, yards, and farm buildings. Because the farms are basically non-commercial, use of chemical fertilizers is at a minimum. Mechanization on dwarf and strip farms is not a viable proposition; the farmers can neither afford to buy tractors or other machinery nor can they employ them effectively. The only practical solution is to continue to use horses; in 1975 there were 2.2 million horses on small Polish farms, only a small decline from the 2.8 million in 1960. (37) Theoretically, the feed consumed by horses could be used for other farm animals; for example, 2 million more cows could be raised, a 32.7 percent addition to the existing stock.

The Polish government, fully aware of the inefficiency of Polish agriculture and unable under current political conditions to institute change by overt coercion, has attempted to reform agricultural patterns by policies of incentives and pressures. Compulsory deliveries, deeply resented by farmers, were abolished in 1971 and the system changed to contractual obligations. Under this arrangement the farmer can contract to the state agency for specified quantities of his products at set prices before his production cycle begins. In exchange, he can obtain advance payment, and preference in allocation of seeds, feed, fertilizers, pesticides, and fuels. Although he is not formally penalized for not fulfilling his quotas, the debit on his account forces him to maximize his production; and he is paid a premium for over-fulfilling. By manipulation of allocations and prices, the government encourages specialized farming.

In the late 1950s, after the collapse of the collectivization drive, the government began to encourage the formation of agricultural circles, claiming that they were a different form of socialization of agriculture. The circles are cooperative ventures of individual farmers in purchasing, marketing, food processing, and utilization of farm machinery. Although they have a long tradition in Polish agriculture, Polish peasants regarded the circles with suspicion after the collectivization drive. They were seen as yet another vehicle of eventual collectivization. Lately, after repeated pronouncements by the government that their purpose is not common ownership of land, circles are increasingly gaining the confidence of farmers.

The number of circles of all kinds grew from 23,100 in 1960 to 35,600 in 1975, and now they are found in 90.7 percent of the rural communes. (38) The circles are given preference in allocation of agricultural inputs and in the purchase of machinery. After 1975, when the state machinery centers stopped providing tractor services and became only conservation and repair shops, the circles became the major agents for mechanization of agriculture. They now own 132,600 tractors, an average of 3.72 units per circle. In comparison there are 80,000 tractors on state farms, 11.93 per farm; 9,600 on collective farms, 8.57 per farm; and 175,000 on private farms, .05 per farm or one for every twentieth farm. (39)

Perhaps the most important farm policies of Gierek's administration are those designed to transfer Polish private farming from dwarf-subsistence to larger specialized, and prosperous farms. These policies are designed to eliminate small, uneconomical units by favoring the existing large farms. In the 1960s the government began a program of compulsory expropriation of uncultivated or neglected agricultural land. Owners were compensated for the land which was then transferred to the state soil bank. Also, elderly farmers could retire on a government pension plan provided they ceded their farms to the state. In many cases dwarf farms were given up gladly, especially since the younger generation was inclined to seek more remunerative and lighter employment in the cities rather than inherit the burden of the family farm. Originally, the land obtained through these programs was to be attached to state farms, or sold or rented only to collective farms or agricultural circles. However, some of the land was a considerable distance from the relatively few state and collective farms and it remained unattended. Therefore, in 1975 the government embarked on a vigorous program to attract efficient private farmers with comparatively large holdings. They were offered the option of purchasing or renting additional land, either from the soil bank or from smaller, neglected private farms. Bank loans were made available to private farmers for these purchases and for soil improvement. It is now also possible for individuals to enter farming if they are graduates of middle level or university agricultural schools. In addition to the land purchase, bank loans were extended on favorable terms to farmers who intend to begin specialized production or to enlarge their existing enterprises. These loans could be utilized for land improvement, irrigation, machinery, new construction, or renovation of old farm buildings. The credit extended to private farmers increased from 21.4 billion zlotys in 1970 to 64.9 billion zlotys by 1975. (40)

Since January 1, 1976 specialized farms have been given a number of privileges through a Charter issued by the township manager. (41) They are assured priority in allocation of materials and machinery and in provision of transport, building, and training services. Farmers changing to

specialization or enlarging upon it can obtain remittance of bank credits, land taxes, and other payments to the state of up to 33 percent of the original obligation. In order to encourage additional land purchase by specialized farms, the remittance rates go up to 50 percent when a 10-hectare holding is increased by at least 40 percent and when a larger holding is increased by at least 4 hectares. (42)

In 1977 private farmers were incorporated into the national insurance health service and a special system of retirement benefits was instituted to encourage older farmers to transfer their property to their heirs, who might otherwise have left farming for city employment. No longer did the farmers have to cede their land to the state in order to qualify for a government pension. This new plan assumes the young owners to be either practical farmers or individuals with an agricultural education. In general, the government facilitates private ownership for graduates of agricultural colleges or technical schools who heretofore had gravitated office jobs rather than to agricultural production. (43)

Equally important to the stimulation of agricultural production and to the gradual re-structuring of Polish agriculture from small farms is the continuous government support for higher and higher farm prices. The prices paid to farmers are designed to favor bigger and specialized farming enterprises. In general terms, they make commercial farming quite profitable. Bonuses are given to those who produce large quantities and to those who over-fulfill their contracted quotas, and various discounts are available to those who use large inputs of fertilizers, pesticides, and fuels. Deliveries to the state doubled the income of private farmers between 1970 and 1975 (from 83.9 million zlotys to 169.3 million at current prices). (44) The commercial output of private farmers (mostly deliveries to the state plus some small quantities sold on the open market) increased over this period by 37 percent, and hence we can estimate the overall increase in payments to the private farmers to be over 60 percent. (45) Prices alone increased on the average by 35.8 percent. (46)

The overall cost of farm production to the government is considerably higher than the prices charged to internal consumers. With the exception of those for "new," "luxury" products, prices have been kept relatively constant and artificially low since the 1960s. Fear of price riots such as those in 1970 and 1976 prevents any dramatic raise. Heavy food subsidies of 100 billion zlotys annually between 1976 and 1980 "will constitute a serious drain on the economy." (47) Another 100 million zlotys are designated to finance the appropriation of between 1.6 and 2 million hectares from weaker farms over the five-year period between 1976 and 1980. (48) Some of this land will be transferred to state farms and cooperatives, but one can assume that a good portion of it will go to prosperous private farmers.

All these policies point in one direction. Despite official pronouncements to the contrary, Gierek's leadership resigned itself to private agriculture in Poland. It attempts to reform rather than to abolish it through collectivization. The reforms are designed to change the land-holding and production patterns from dwarf and subsistence ones to medium-sized commercial farming. The present Polish communist leadership puts its agricultural bet not on "the drunken and the poor" but on the sober and the prosperous - the kulaks.

NOTES

- (1) Andrzej Korbonski, Politics of Socialist Agriculture in Poland, 1945 - 1960 (New York: Columbia University Press, 1965), p. 10.
- (2) M. K. Dziewanowski, The Communist Party of Poland (Cambridge: Harvard University Press, 1959), pp. 34-35.
- (3) Korbonski, op. cit., p. 10, footnote 30.
- (4) Dziewanowski, op. cit., pp. 157-59.
- (5) Ibid., p. 174.
- (6) Ibid., pp. 177-78.
- (7) Ibid., pp. 179-81
- (8) Andrzej Burda, Rozwoj Ustroju Politycznego Polski Ludowej (Warszawa: PWN, 1967), p. 12; Zbigniew Zaluski, Czterdziesty Czwarty (Warszawa: Czytelnik, 1968).
- (9) Dziewanowski, op. cit., pp. 183-207.
- (10) Korbonski, pp. 37-38.
- (11) Ibid., pp. 43-44.
- (12) Z. Anthony Kruszewski, The Oder - Neisse Boundary and Poland's Modernization (New York: Praeger, 1972), chapters 2 and 3.
- (13) Korbonski, op. cit., p. 152.

- (14) Dziewanowski, op. cit., p. 195.
- (15) Jan B. de Weydenthal, "The Shape of the Polish United Workers' Party: The Impact of Membership Upon Organization and Politics," Paper read at Eighth National Convention of the American Association for the Advancement of Slavic Studies, October, 1976, at St. Louis, Missouri, pp. 1-4.
- (16) Korbonski, op. cit., p. 135.
- (17) Ibid., p. 159.
- (18) Ibid., p. 163.
- (19) Ibid., p. 172.
- (20) Rocznik Statystyczny (Warszawa: Główny Urząd Statystyczny, 1962), p. 199, table 37.
- (21) Korbonski, op. cit., p. 180.
- (22) Rocznik Statystyczny, 1961, op. cit., p. 201, table 52.
- (23) John Montias, Central Planning in Poland (New Haven: Yale University Press, 1962), p. 5; Zygmunt Szeliga, "The Polish Economy: 1967-1968," Contemporary Poland, No. 2 (February, 1967): p. 13.
- (24) Rocznik Statystyczny, 1975, op. cit., p. 25, table 1.
- (25) Ibid., 1961, p. 268, table 2; *ibid.*, 1975, p. 340, table 7; Thomas A. Vankai, "Poland's 5-year Plan Sets High Food Goals," Foreign Agriculture, (August 1, 1977): p. 8.
- (26) Uchwała V Zjazdu Polskiej Zjednoczonej Partii Robotniczej (Warszawa: Książka i Wiedza, 1968), pp. 8, 9, 12, 13.
- (27) Rocznik Statystyczny, 1975, op. cit., p. 337, table 3.
- (28) Ibid., 1971, p. 574, table 20.
- (29) Calculated from Rocznik Statystyczny, 1975, op. cit., pp. 395-96, Table 5.

- (30) Maly Rocznik Statystyczny (Warszawa: Glowny Urzad Statystyczny, 1976), p. 138, table 1.
- (31) Production + Import-Export, calculated from: Maly Rocznik Statystyczny, 1976, p. 95, table 10; p. 191, table 7; p. 192, table 8.
- (32) Jerzy Kucharz, "Lights and Shadows of Agricultural Policy," Wiadomosci, No. 5, (February 7, 1971): p. 3 as quoted in: Radio Free Europe Research, East Europe, Poland, April 22, 1971, pp. 44.
- (33) 2.1 million in 1961-62, 3.2 million in 1966-70, 3.5 million in 1970-75 and 3.3 million in 1976-80, see XI Plenum K. C. PZPR, September 4, 1971, p. 40.
- (34) Polish Central Statistical Office, Poland, Statistical Data, 1976, p. 16, table 9.
- (35) Calculated from *ibid.*, p. 16, table 9; p. 38, table 47.
- (36) Maly Rocznik Statystyczny, *op. cit.*, p. 339, table 50.
- (37) *Ibid.*, p. 150, table 14.
- (38) *Ibid.*, p. 155, table 22.
- (39) *Ibid.*, p. 161, table 30; p. 154, table 19; p. 155, tables 21 and 22; Pawel Bozyk, The Economy of Modern Poland (Warsaw: Interpress Publishers, 1975), p. 60.
- (40) Maly Rocznik Statystyczny, *op. cit.*, p. 274, table 7.
- (41) The township manager is a government appointed professional executive officer of the township. He is assisted by the elected township council.
- (42) Wiktor Zujewicz, "The Modernization of Agriculture," Polish Perspectives, vol. XX, No. 5 (May 1977): p. 13.
- (43) Renata Siemienska and Marek Bijak-Zochowski, Od Studiow Do Zawodu I Pracy, (Warszawa: PWN, 1975), Part III.
- (44) Maly Rocznik Statystyczny, *op. cit.*, p. 163, table 34.

(45) Ibid. , p. 139, table 2.

(46) Zujewicz, op. cit. , p. 11.

(47) Vankai, op. cit. , p. 8.

(48) Ibid. , p. 7.

5

Modernization, Collectivization, Production, and Legitimacy: Agricultural Development in Rural Hungary

Ivan Volgyes

INTRODUCTION

Nearly thirty years have passed since the communist government came to power in Hungary, three decades during which enormous changes have taken place in the Hungarian countryside. The changes that have taken place during these years have been defined and redefined from the perspectives of those examining them; they have been either "acclaimed with pride" or "viewed with reprehension," depending on the political and intellectual bias of the observer. Whatever the accomplishments, whatever the failures, it is incumbent upon us to analyze these changes both from the perspective of measurable accomplishments and from the perspective of goal achievement as defined by the current regime. This essay will concentrate on the economic aspects of change, leaving aside, for the time being, the social, cultural, and societal transformation process which was made possible precisely because of the success of the economic transformation of rural Hungary.

Rural transformation in our study refers to the changes in the countryside that are made possible by the measurable processes of modernization. The processes of modernization are responsible for the role played by agriculture and the direction of change that takes place in rural economic life. As suggested by the very word, modernization means the adaptation of new techniques, new methods, and new equipment to the changing needs of production.

Consequently, modernization is measurable in the economic sense. Such indices as the changes in the agricultural-industrial mix, in the aggregate levels of production, and in the efficiency and sufficiency of production can be identified, and the Tables included in the study can be used as valid

depictors of change. While many other equally-important indicators exist, such as the existence or non-existence of improvements in roads and the investment or lack of investment in infrastructures, it is incumbent upon us to acknowledge the positive developments that can be measured through the existing data.

A BRIEF SURVEY OF HISTORICAL DEVELOPMENTS

The Hungarian government that was formed in the aftermath of World War II inherited a relatively-backward agrarian sector. In 1945, approximately 48 percent of the Hungarian population lived in the agrarian sphere. (1) While this meant that Hungary as a whole had entered the developmental stage characterized as mixed (e. g. having an agrarian population amounting to between 33.6 percent and 55 percent of the total population), the agrarian sector was still dominant in the country. (2) As a matter of fact, between 1900 and 1941 the number of urban dwellers rose only from 40 to 42 percent of the total, and this percentage had not changed significantly by 1945 (Table 5.1). (3) After World War II 49.8% of all active earners were still involved with agriculture as a primary occupation, an agriculture that was not characterized by modernity (Table 5.2). (4) Moreover, of the 4,000,600 people who lived in the agricultural sphere, there were approximately 3,000,000 people who had little or no land. (5) In fact, statistics reveal that there were approximately 1,750,000 people who had little or no land and 1,184,783 owners who had less than 3 hectares of land. (6)

The land reforms that took place between 1945 and 1947 divided the land substantially by giving an average of 2.93 hectares to 642,342 persons. (7) Most of those who were given land previously had no land at all; 93.3 percent of the new owners had been agrarian workers employed by others, agricultural servants on large estates, and other members of the agricultural proletariat. (8) It is important to note, however, that even after the land reforms there still remained approximately 2,000,000 agrarian poor. Of these, 506,000 had no land and 1,500,000 had less than 3 hectares of land. (9) As a result of this landlessness, more than 150,000 people left agriculture between 1946 and 1948 and moved into other, mostly industrial, occupations. (10)

The structure of land ownership changed significantly between 1941 and 1949 (Table 5.3). While these changes were considerable the basic character of Hungarian land ownership was not altered; in 1935, 87.7 percent of all land holdings were below 6 hectares, and in 1949, 86.7 percent of all estates were below that figure. Consequently, Hungarian agricultural production was still characterized by small farms and heavy, labor-intensive, manual-production methods that utilized minimal amounts of chemical fertilizer.

TABLE 5.1 Urban/Rural Ratio of Population

	<u>Urban</u>	<u>Rural</u>
	in % of total	
1930	39.4	60.6
1941	41.5	58.5
1949	39.7	60.3
1960	42.6	57.4
1970	47.6	52.4
1971	48.3	51.7
1972	48.7	51.3
1973	49.1	50.9
1974	49.6	50.4
1975	49.9	50.1
1976	50.2	49.8

Source: Derived and/or calculated from Hungarian agrarian and other statistical sources.

The Communist Party's early commitment to large-scale collectivization was based on the Soviet model. (11) There were several reasons for adopting this model: first, at the time of the collectivization measure, the Soviet model was the only "successful" communist agrarian policy; second, the Muscovite communists, who by 1950 were firmly entrenched, consciously emulated the Soviet model in order to please Stalin; (12) third, communist economics, the "economics of scale," viewed peasant agriculture in Hungary as inefficient, unproductive, hostile to the notion of collective ownership, and, hence, totally backward. The collectivization measures undertaken in Hungary between 1949 and 1953 were characterized by incredible cruelty which, while it cannot be compared with the Soviet experience between 1929 and 1933, extracted an extremely high toll among the agrarian population. Collectivization, however, altered the pattern of agricultural employment (Table 5.4). (13) In 1949, 96.1 percent of all those employed in agriculture worked in the private sector; by 1953 this figure had dropped to 67.7 percent. Correspondingly, the percentage of those employed in the collective sector had risen from .5 percent in 1949 to 19.1 percent in 1953. (14) Simultaneously, the collective farm area had risen from 54,912 hectares in 1949 to 1,706,025 hectares in 1953 (Table 5.5).

TABLE 5.2 The Distribution of Active Earners According to Productive Sectors

Productive Sector	1910-1975					
	1910*	1938	1949	1953	1956	1960
	Number of Active Earners in 1000					
Industry	1438	721	780	963	1144	1324
Agriculture	656	1970	2158	1893	1945	1871
Tertiary	1675	1124	1085	1551	1536	1632
Total	3769	3815	4023	4407	4625	4827
					1582	2233
					1473	1156
					1860	1696
					4902	5085
	As Percentage of Total Active Earners					
Industry	18	19	19	22	25	27
Agriculture	60	52	54	43	42	39
Tertiary	22	29	27	35	33	34
Total	100	100	100	100	100	100
					32	44
					30	23
					38	33
					100	100

* 1910 data refers to historic or greater Hungary.

Source: Dr. Bela Fazekas, Mezogazdasagunk a felszabadulas utan (Our Agriculture After the Liberation) (Budapest: Mezogazdasagi kiado, 1967), p. 68, Berend-Ranki and Zsebonyv, 1976.

TABLE 5.3 Structure of Land Ownership

In 1935

Size of Estates	Number of Estates	% of All Estates	Area of Estates in Hectares	% of Area Held	Average Size in Hectares
0-3	1,184,783	75.2	937,966.5	10.1	0.8
3-6	204,471	12.5	849,491.2	9.2	4.0
6-12	144,186	8.8	1,164,918.9	12.6	8.0
12-30	73,663	4.5	1,249,072.5	13.5	17.0
30-60	15,240	0.9	595,793.1	6.5	39.0
60-120	5,792	0.3	463,544.3	5.0	79.0
120-600	5,202	0.3	1,221,760.5	13.2	235.0
600+	1,070	0.2	2,650,088.1	29.9	2,476.0
Total	1,634,407	100.0	9,132,634	100.0	

After Land Reform 1949

0-3	1,406,325	68.1	1,651,376	17.9	1.2
3-6	388,179	18.8	1,948,593	21.1	5.0
6-12	175,428	8.5	1,603,878	17.3	9.1
12-30	71,164	3.4	1,356,427	14.7	19.1
30-60	14,804	0.7	744,916	8.1	50.1
60-120	5,525	0.3	410,844	4.4	74.4
120-600	4,034	0.2	777,819	8.4	192.8
600+	595	0.0	754,357	8.1	1,267.8
Total	2,066,114	100.0	9,227,818	100.0	

Source: Sandor Orbon, Ket agrarforradalom Magyarországon (Budapest: Akadémiai Kiadó, 1972), pp. 11 and 61.

TABLE 5.4 Development of Land Ownership Structure and the Employed Agrarian Population 1949-1982

Year	State	Collective	Private	Other	State Sector	Collective Sector	Private Sector
1949	25.4	0.5	72.4	1.7	3.4	0.5	96.1
1950	27.4	3.1	67.8	1.7	4.5	1.6	93.9
1951	31.2	6.6	57.8	4.4	5.6	5.7	88.7
1952	31.4	10.5	50.4	7.7	10.2	15.2	74.6
1953	36.6	15.4	42.9	5.1	13.2	19.1	67.7
1954	35.8	13.1	48.3	2.8	15.0	13.1	71.9
1955	35.8	12.9	48.5	2.8	13.7	11.8	72.5
1956	36.1	16.5	44.7	2.7	15.1	15.4	69.4
1957	33.9	9.3	54.0	2.8		7.1	
1958	38.4	7.9	51.1	2.6		7.4	79.1
1959	35.0	21.8	40.5	2.7		8.5	77.1
1960	35.0	44.1	18.1	2.8		37.5	54.2
1961	63.8	57.3	3.7	2.8		61.6	20.0
1982		58.3	3.3			75.1	6.5

Source: Sándor Orbán, Két agrárforráshalm Magyarországon (Budapest: Akadémiai Kiadó, 1972), pp. 89 and 131.

TABLE 5.5 Growth of Collective Farms, 1949-1982

Year	Number of Collective Farms	Area in Hectares	Percent of Land Area	Number of Members	% of Agricultural Employment	Average Area in Hectares	Average Area in Hectares/Member
1949	500	54,912	0.6	12,900		109.8	4.26
1950	1,788	294,975	3.2	119,500		203.0	2.47
1951	4,046	877,047	9.4	260,100		216.0	3.37
1952	4,653	1,246,542	13.4	322,300		294.0	3.87
1953	5,224	1,706,025	18.3	376,100		252.0	4.53
1956	4,863	1,552,327	16.7	343,397		319.2	4.52
1957	3,457	867,157	9.3	160,381		250.8	5.41
1958	2,755	738,805	7.9	139,770	7.1	268.2	5.28
1959		2,012,327	21.8	169,000	7.4		11.91
1960		4,079,675	44.1	724,700	37.5		5.63
1961		5,300,580	57.3	1,101,700	61.0		4.81
1982		5,386,945	58.3	1,278,200	75.1		4.21

Source: Sándor Orbán, Két agrárforráshalm Magyarországon (Budapest: Akadémiai Kiadó, 1972), pp. 112, 162, 197, and 216.

It cannot be said, however, that the growth of agricultural production was synonymous with the growth of collectivization. Between 1949 and 1953 an additional 365,000 people left agriculture to search for employment in the urban areas, bringing the total number who left agriculture between 1946 and 1953 to 515,000. (15) Agricultural growth fell during these years to below pre-war levels. (16) Looking at the data closely, it can be seen that, if the average growth rate for the years 1934 to 1938 is taken as 100, the average growth rate between 1950 and 1954 was only 94.1. (17)

After the death of Stalin and the July 4, 1953 speech of Prime Minister Imre Nagy, forced collectivization in Hungary was abolished and the collective sector decreased rapidly; in 1957-58 it accounted for only 7.9 percent of the total farm land and employed only 7.1 percent of the agricultural population. (18) However, re-collectivization was decided upon by the Moscow Conference of 1957 and this policy began to be implemented in Hungary in 1959. Although less brutal methods were utilized than during the previous years, the regime was clearly intent upon rapidly collectivizing the entire rural area. By 1962 only 6.5 percent of the population employed in agriculture could be identified as private peasants, and 75 percent of all active earners in the agricultural sector were employed in the collective sphere (Table 5.6). Similarly, only 3.3 percent of the land remained in the hands

TABLE 5.6 Changes in the Land Ownership and Employment Structure

Percentage of Employment in Agriculture
According to Social Sector of Ownership

<u>Year</u>	<u>Collective Farms</u>	<u>Private Farms</u>
1958	7.4	79.1
1959	8.4	77.1
1960	37.5	54.2
1961	61.6	20.0
1962	75.1	6.5
1965	76.1	10.2
1970	78.7	7.5
1973	75.8	8.6
1975	62.0	10.6

Source: Sandor Orbon, Ket agrarforradalom Magyarországon (Budapest: Akadémiai Kiado, 1972), p. 218.

of the private sector; the rest of the land belonged to the state and collective farms (Table 5.7). The number of private farmers continued to decrease, and by 1974 only 120,000 private farms existed that were bigger than .6 of a hectare. (19)

One reason for the relative success of this collectivization was the fact that the household farms of the cooperative farm members, unlike those that were collectivized between 1949 and 1953, began to show a profit. In 1970 there were 892,000 household plots occupying 653,000 hectares, an average of less than .6 of a hectare per plot. The number of these plots continued to decrease until 1975, when there were 800,000 of them. These household farms became the main sources of auxiliary agriculture, backing up the state and collective farm structures as mainstays of the food economy. (20) The post-1968 economic reforms had increased the profitability of this activity, and the peasants' participation in production for the private and common good added greatly to the stability of the regime.

COLLECTIVIZATION AND PRODUCTIVITY

The most significant question that can be asked from the perspective of political scientists studying the question of productivity is: Has collectivization affected productivity? Data would bear out the contention that the methods used to collectivize, forcible or voluntary, undoubtedly affect efficiency and productivity. All the indicators seem to show that there was no significant improvement in productivity between 1950 and 1961. In fact, average yields of wheat, rye, barley, oats, corn, rice, potatoes, sugar beets, grapes, poultry, and eggs declined during those years. However since 1961 all production units have shown significant increases, with the exception of years when the decreases were clearly the result of natural disasters or inclement weather conditions (Table 5.8). The positive changes in the aggregate levels of production were matched by the efficiency and the sufficiency of production indices for the period from 1959 to 1975 in spite of the fact that the number of people employed in agriculture had dropped from 2,158,000 in 1949 to 1,784,100 in 1960, and to 1,039,000 in 1975. (21)

Can it be said that the success and failures of agricultural production are directly related to the manner in which collectivization is handled? I believe that here we deal with a much more complex question. There cannot be any doubt that collectivization has created the conditions for the modernization of agriculture, but the variables of financial investments made by the regime in agriculture and the general role that agriculture plays in the national development scheme also have to be noted. The period between

TABLE 5.7 Percentage of Agricultural Area Held by State and Collective Farms, 1950-1975*

<u>Year</u>	<u>Percent</u>
1950	30.6
1951	40.6
1952	47.8
1953	54.9
1954	48.9
1955	48.7
1956	52.6
1957	45.8
1958	46.3
1959	62.1
1960	79.2
1961	90.1
1962	93.0
1963	93.4
1964	93.6
1965	94.5
1966	94.4
1967	94.4
1968	94.5
1969	94.1
1970	94.3
1971	94.1
1972	94.1
1973	94.1
1974	94.1
1975	94.2

* Includes Private Plots.

Source: Derived and/or calculated from Hungarian agrarian and other statistical sources.

TABLE 5.8 Grain Production

<u>Year</u>	<u>Yield per Hectare (in quintals)</u>	<u>Total Production* (1,000 metric tons)</u>
1950	14.4	5,480
1951	18.5	6,928
1952	11.8	4,163
1953	18.2	6,332
1954	15.0	5,496
1955	18.0	6,597
1956	14.8	5,289
1957	18.9	6,990
1958	15.7	5,690
1959	20.5	7,318
1960	20.0	6,860
1961	18.6	6,109
1962	20.6	6,728
1963	20.8	6,369
1964	21.4	6,813
1965	23.9	7,391
1966	24.6	7,495
1967	25.9	7,814
1968	25.8	8,367
1969	29.9	9,605
1970	25.9	7,566
1971		9,830
1972		11,103
1973		11,661
1974		12,491
1975		12,211
1976		11,503

* 1950-62: Includes buckwheat, millet, spelt, mixed grains, and rice.

1963-70: Includes wheat for feed.

1972-76: Includes wheat, rye, rice (paddy), corn, barley, oats, pulses.

Source: Derived and/or calculated from Hungarian agrarian and other statistical sources.

1949 and 1953 was characterized by an exploitation of agriculture in favor of industry; little or no investment was made in the agricultural sphere when compared to industry. (22) Between 1950 and 1953 fewer than 1,700 tractor units with 15 horsepower were introduced into agriculture, while over 60,000 of those units were introduced between 1961 and 1971 (Table 5.9). Moreover, between 1949 and 1953 there was an annual attrition rate of nearly 80,000 persons who essentially were forced out of their agricultural livelihood to work in industry; since 1961 forced attrition has been eliminated. Hence it would be safe to posit that the type of collectivization seems to be less a causal variable than the general desire and willingness of the regime to make significant investments in the agricultural sphere.

A confounding variable is introduced by the classification system of the cooperative farms. Here, however, aggregate production indices can provide only rather meaningless numbers. In Hungary the most important single determinant of production seems to be whether a collective farm is regarded as good, average, or poor according to the classifications of the Hungarian Central Statistical Office. (23) In 1975, this office rated 1,599 collective farms: 312 were regarded as good; 1,073 were considered average; and 214 were labeled as poor. (24) Per unit of investment alone, the good cooperatives realize 20 percent more return than the poor cooperatives. Similarly, the amount of new investment per unit area in 1972 was 500 times greater in the good collective farms than in the poor ones. The regime's policy encourages this differentiation and rewards the good collective farms with proportionally higher earnings, investments, and support because a significant cause of the increase in aggregate levels of production is the substantial production of these 312 cooperatives. It is primarily the material incentives that render earnings 40 to 70 percent higher in the good cooperatives than in the poor and the consequent policies of differentiation that explain the success of the government's agricultural triumphs. (25)

It is, of course, tempting to suggest that privately-owned or operated agricultural units are still far more efficient than the units of the collective or state sectors. In 1976, 50 percent of beef cattle, animal products, and fruit crops were produced by the household farms and the "auxiliary" private farms. These small agricultural units also contribute 90 percent of the small animals, 70 to 80 percent of the different types of berries, and 25 to 40 percent of the pigs and eggs (Table 5.10). Looking at the actual data we can see that 12.1 percent of the total land area seemed to be responsible for the production of all these goods. Ipsso facto, it is easy to conclude that these figures must point to the inefficiency of the collective agricultural sector. Such a view, however, would utilize the term "efficiency" in a dubious manner. The fact that it is much cheaper per unit of production to raise cattle, swine, or poultry on a large scale seems to confuse the analysis. Cost seems to outweigh other economic considerations if only the per

TABLE 5.9 Agricultural Mechanization

	<u>Grain Combines</u>	<u>Tractors in 15 h. p. Units (Thousands)</u>
Prewar	21	n. a.
1950	25	12.7
1951	160	13.0
1952	764	13.4
1953	1,657	14.3
1954	2,274	17.7
1955	2,227	23.7
1956	2,269	26.2
1957	2,346	26.7
1958	2,324	27.6
1959	n. a.	36.4
1960	4,167	47.9
1961	4,698	52.7
1962	5,604	61.1
1963	7,014	71.8
1964	7,957	83.8
1965	8,841	91.5
1966	9,668	96.9
1967	9,805	98.2
1968	10,418	100.4
1969	11,207	104.4
1970	11,773	112.6
1971	12,900	
1972	13,500	117.6
1973	14,000	120.5
1974	15,000	
1975	14,000	233.3
1976	15,000	

Source: Derived and/or calculated from Hungarian agrarian and other statistical sources.

TABLE 5.10 Production of Household Farms
(As Percent of Total Produced)

	<u>1964</u>	<u>1970</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Cattle Production	46.0		36.0	32.1	30.4	50.0
Cows	55.0					
Swine	56.0	30.9	49.9	58.9	54.3	
Sows	48.5					
Poultry		32.5				
Corn	77.4					
Fruit	59.6					
Grapes	57.5					
Meat	55.1					
Eggs	50.0	48.1				
GROSS AGRARIAN PRODUCT	37.2					
NET AGRARIAN OUTPUT						50.2

Note: Total Land Area: 14.2 percent of total land area in 1964.
8.3 percent of total land area in 1974.

Source: Erno A. Toth, A haztaji es kisegito gazdasagok, fold hasznositasuk gazdasagi kerdesei (The Household and Auxiliary Farms: Economic Questions Relating to Land Use) (Budapest: Akademiai kiado, 1970), p. 69.

unit cost of production is viewed. However, in any serious analysis of agricultural cost-accounting, there are several types of costs involved. From the perspective of the Hungarian government, there were several options open between 1968 and 1969 and in the period that ensued. The leaders could have followed the policy set between 1949 and 1953 and insisted on the nationalization of all property, including livestock, cattle, swine, and poultry. Had they followed that course, they would have had to increase greatly the number of stables and pig sties, and they would have had to invest in expensive ventilation and mechanical fodder systems. Secondly, they could have undertaken a laissez faire policy, allowing the peasant to produce whatever he wished. Thirdly, the regime could have encouraged the peasantry to assist the economy by producing those labor-intensive items that would need large-scale, infrastructural improvements. This would have enabled the government to concentrate on the collective and state sectors where the in-

roduction of large-scale production methods appeared to be the most cost-effective.

The policies of the Hungarian government clearly were of the third type. After a small, halting step backward between 1972 and 1974, the regime accepted the fact that small-scale farming, while it should not rival the 64 percent production dominance maintained by the large-scale farm units, should be supported and even encouraged. The government had beaten a hasty retreat after realizing that the brief 1972-74 period of more restricted private earning potential among household auxiliary farms had resulted in a dairy shortage, a pork shortage, and a beef shortage; 1,600,000 fewer pigs and 200,000 fewer cattle were brought to the market in 1975 than in previous years. (27) The government recognized that the reason why 10 to 15 percent of the total land area accounted for 36 percent of the agricultural output was not to be sought in the inherently less efficient nature of collective or state production methods, but rather in the nature of investment required to reach those productivity levels on a large scale. Such labor-intensive activities as producing pigs, cattle, and eggs, trimming vineyards and picking berries can be better accomplished on a small scale through the use of available labor and labor time. From the perspective of the regime, this was more "efficient" than infusing an initial large-scale investment of approximately a half-billion dollars at 1975 prices. (28) Thus, the government wisely opted for effective assistance to household farms and auxiliary farms. In fact, a large percentage of Hungarian farmers who have benefited from excellent collective farms, wish to give up their private lands for more free time, more comforts, and increased consumption levels. The government has found itself in the unique situation of exhorting them to maintain their private farming activities. (29)

The sufficiency of production also needs to be mentioned here. Per capita consumption of both urban and rural inhabitants has grown consistently (Table 5.11). What is important, however, is the recognition by the government that decreasing productivity and decreasing sufficiency would adversely affect the urban population, the workers in whose name the regime theoretically rules the country. One of the most significant factors in the regime's decision to maintain the household plot was to insure sufficiency, to make certain that the shops of the cities are stocked adequately with agricultural products. If the agricultural productivity of the small plots was not made extremely profitable, this goal could not have been met. Consequently, the regime placed most farm product prices in the third category of price levels, allowing them to be dictated mainly by supply and demand factors. Although this resulted in the peasants charging "sky-high" prices on the open market, the sufficiency of production and consumption has been assured. Hence, unlike other collectivized economies, such as Bulgaria, Romania, Czechoslovakia, and the USSR, the profitability of private productive activity

TABLE 5.11 Per Capita Consumption of Selected Foods
Prewar and 1950-70
(in Kilograms)

Year	Cereals*	Potatoes	Sugar	Vegetables	Fruit	Meat and Meat Products**	Slaughter Fats	Milk Products	Butter	Eggs	Vegetables Oils	Fish
1934-38 average	147.0	130.0	10.5	n.a.	n.a.	33.2	13.0	101.9	n.a.	5.2	n.a.	n.a.
1950	141.2	108.7	16.3	n.a.	n.a.	34.3	15.8	111.9	1.0 ⁺	4.7	1.9	n.a.
1951	150.5	106.6	16.4	n.a.	n.a.	34.5	15.6	96.4	1.0 ⁺	4.4	2.6	n.a.
1952	150.8	102.8	19.7	n.a.	n.a.	36.4	16.9	77.1	.9 ⁺	4.9	2.2	n.a.
1953	155.7	109.5	21.1	n.a.	n.a.	28.3	14.9	88.6	.8 ⁺	3.4	2.5	n.a.
1954	148.0	113.1	32.2	n.a.	n.a.	32.9	16.1	93.5	1.0 ⁺	4.7	2.5	n.a.
1955	151.7	119.9	24.4	n.a.	n.a.	36.9	18.4	86.7	1.0 ⁺	5.7	2.6	n.a.
1956	154.8	103.6	25.0	n.a.	n.a.	40.7	20.0	91.0	1.0 ⁺	6.9	1.6	n.a.
1957	136.7	102.2	25.1	n.a.	n.a.	41.1	19.5	106.8	1.1 ⁺	7.8	1.3	n.a.
1958	133.4	99.3	24.7	n.a.	n.a.	41.3	18.4	108.6	1.2 ⁺	8.2	1.1	n.a.
1959	137.2	99.7	25.9	n.a.	n.a.	45.9	20.0	114.9	1.3 ⁺	8.7	1.3	n.a.
1960	136.2	97.6	26.6	84.1	55.3	47.6	20.8	114.0	1.4 ⁺	8.9	1.3	1.5
1961	136.9	95.0	27.6	78.7	66.0	48.3	20.4	106.0	1.5	8.9	1.5	1.5
1962	135.2	94.1	28.0	76.8	64.0	49.9	19.7	103.5	1.6	8.9	1.6	1.6
1963	134.9	88.9	28.7	88.3	70.1	50.3	20.3	97.3	1.6	9.0	1.9	1.6
1964	135.6	87.8	29.7	78.5	65.4	51.3	20.8	99.5	1.6	10.0	2.0	1.8
1965	139.2	84.3	30.1	76.7	52.8	51.6	19.5	97.1	1.6	10.4	2.0	1.6
1966	135.3	85.2	31.3	83.5	62.0	50.0	21.0	100.6	1.6	10.7	2.0	2.0
1967	134.5	84.6	32.0	81.5	70.6	51.6	22.3	106.1	1.6	11.2	2.0	2.3
1968	132.5	80.0	31.7	82.4	68.9	53.8	22.3	110.6	1.9	12.1	2.2	2.5
1969	130.5	75.4	34.2	85.8	72.4	55.2	22.0	112.2	2.1	12.3	2.5	2.6
1970	128.0	75.0	33.5	84.0	70.0	58.0	22.5	111.0	2.2	13.0	2.8	2.5
1972	122.2	69.1	35.5			61.5	22.0	116.3	2.1		3.3	
1973	120.0	66.5	37.1			63.7	22.2	112.4	1.7		3.9	
1974	119.5	66.4	37.7			66.2	22.7	118.6	1.7		4.4	
1975	121.0	65.0	40.0			71.0	28.5	125.0	1.8		4.6	

* In terms of flour; includes wheat, rye, and rice

** Includes meat products converted to raw meat basis

+ Derived from official data

n. a. = Not available

Source: Derived and/or calculated from Hungarian agrarian and other statistical data.

in Hungary has been supported by the regime in the interest of insuring the sufficiency of foodstuffs and the relative well-being of the entire population.

COLLECTIVIZATION AND POLITICAL LEGITIMACY

To what extent can we say that the method used to achieve collectivization affects the legitimacy of the regime? If results of the forced collectivization of the period between 1949 and 1953 are compared with the milder collectivization efforts of the period between 1959 to 1961, it becomes tempting to say that the milder, "voluntary" collectivization bestowed greater legitimacy on the system. Such conclusions, however, need to be examined very carefully. The fact remains that it is not the nature of collectivization or the method which is used to impose it that seems to be the determining factor in its success or failure; the final results, the benefits derived from the given policies, these are what count. The Rakosi and Kadar regimes essentially have possessed different degrees of legitimacy in the eyes of the peasantry not because they undertook different policies of collectivization, but because of the benefits derived by the peasantry from the collectivization and from the emerging collective system. During the period between 1949 and 1953 the only persons who derived significant benefits from the collectivization process were largely landless peasants who voluntarily entered the collective farms. Between 1949 and 1951, 60 percent of all those who joined the collectives were landless peasants; peasants with small and medium-sized farms joined in 1952 when they were forced to do so. In contrast, between 1959 and 1961 collectivization affected nearly everyone. Collectivization introduced new policies that began to create an essentially stratified peasant society consisting of those who were satisfied with the system and those who were dissatisfied. In the 1970s members of the good collective farms and the "rich peasants" view the regime and its policies positively; since they live well as a result of the regime's laissez faire policies, they accord legitimacy to the regime. Members of the poor and middle-level collective farms and the poor peasants view the regime considerably less benevolently and express grave doubts about its legitimacy. The method used to achieve collectivization matters less than the final result of the process as a determinant of the policy's success.

The economic bases of the Hungarian countryside have been changed permanently. Huge farms dominate the type of production that is characteristic of the country. The collective or state farms supply a far greater percentage of the increased agricultural demands of the country than could the large estates of pre-war Hungary or the small estates of the post-war re-

forms. The collectivization that took place was simply a part of a general modernization of Hungarian agriculture and Hungarian economic life. Combines, center pivot irrigation systems, chemical fertilizers, new types of hybrids, mechanically-harvested fruit, and efficient dairy mechanisms are as much a part of the Hungarian agricultural scene today as were the wooden hoes, the cattle or human pulling power at the time of spring plowing, and the team effort in using the scythe at the time of harvesting a quarter of a century ago. The collectivization of agriculture was merely a part of this gigantic transformation process. An important, significant part, without which the large-scale investments that were made could not have been undertaken, but a part only, nonetheless. The collectivization of agriculture changed some of the production and land ownership structures that had dominated Hungary. Curiously, however, it also reiterated and continued to maintain the dominance of the large farms and the enormous economic importance of the small, independently-operated agricultural units. The balance sheet for collectivization is a positive one based on the recognition of the nature and importance of these small units and their historical and contemporary contribution to the Hungarian economic system.

CONCLUSION

The Hungarian socialist state can be examined in the light of the questions posed in the introductory chapter.

In addressing the question concerning the relative efficiency of private and collective farming, it is difficult to generalize because of the complexities encountered in formulating such a generalization. For example, collective farming in Hungary is far more labor-efficient in the large-scale productive units which utilize capital and technology more efficiently than small-scale enterprises. Furthermore, we cannot posit that these efficiencies could and would be reversed if the same amount of investment in capital and technology were made available to the small-scale producers. The fact is that there is a larger amount of money available for the large-scale units and small-scale agricultural enterprises do not possess the wherewithal to be more efficient. Hungary is a relatively poor country where investment capital, technology, and labor are all finite.

At the same time, it is clear that production of certain commodities - berries, grapes, fruit, some vegetables, and livestock - is more efficiently accomplished on the small-scale farm. Once again the caveat must be entered: these labor-intensive production activities are not more efficiently accomplished per unit of production on the small farms than they would be on the large-scale farms, but rather the cost of technological, and infra-

structural improvements necessary to equalize or excel the small-scale efficiency is prohibitive within the next two decades. Nonetheless, it is also clear that, because of the changing attitudes of the peasantry and the altered and transformed nature of agricultural occupations, the regime must begin to assist the large-scale farms to take over those functions that will someday be given up by the small-scale units.

It is certainly true that the manner in which collectivization is carried out does affect production efficiency; Stalinist collectivization was unable to gain the same type of compliance as the post-1956 collectivization. However, two other factors seem to be responsible for production efficiency in terms of peasant attitudes toward collectivization: the first is the recognition that resistance is futile and that the day of private ownership of land is over, once and for all; the second is the recognition that collective farms will provide an income - either through hefty state support or subsidies, or through the actual work accomplishments of the collective farm - that will be significantly in excess of what one could earn on one's own land.

Land reform in Hungary has been utilized as both a political tool and an economic reward system. Hungary, as well as Poland and East Germany, was sorely in need of land reform. The question was merely: What type of land-reform? Political considerations prevailed in making the decision. In dividing up the large estates, the communists first targeted them for ownership by the landless and dwarf-farm peasants, which was in accordance with communism's ideals. Those who were most able to farm the land and whose productivity would have been most important from an economic perspective were not considered. Consequently, the size of land holdings remained exceedingly small and production was oriented largely toward fulfilling needs of self-sufficiency.

Conversely, the two types of collectivization can be distinguished also on the basis of the peasant populations on whose shoulders collectivization rested. The first collectivization of 1949-1954 relied heavily on the small land holdings of the poor and on the "contributions" of the landless. The second, and far more successful collectivization, brought the lands and implements of the peasants with larger farms into common use. Consequently, the type of peasantry on whose lands the new system is based is an important independent variable.

In addition to the general development of the industrial sector, which, indeed, is an important contributor to the success of agriculture, the general organization of the farms and the introduction of modern management techniques and production attitudes must be considered. Modern production methods and technological improvements are necessary concomitants for the success of the collective farm. Biological improvements - high-yield crops, new strains of beef and milk cattle, or upgraded poultry stocks - cannot be successfully implemented without organization techniques and marketing principles that are profit-oriented.

The integration of the peasantry into the citizenry has been one of the keys to the success of collectivization. Health, welfare, and education have been extended to all members of the society. When peasants realize these benefits and when rural incomes become equal to industrial incomes, agrarian occupations, whether in or out of the collectives, become more acceptable socially, professionally, and, most significantly, psychologically. This new-found respect from the urban sphere plays an important role in the improvement of agricultural production.

While it is true that local decision-making in collective agriculture is generally directed from the outside through a variety of control measures, the Hungarian experience seems to suggest the development of significant local inputs as well. There have been several well-organized rebellions against collective chairmen who were imposed from the outside. Although the district Party organizations retain the right to nominate these managers, the most successful collectives exist where there are strong, grass-roots inputs and some local autonomy.

In the case of Hungary, one can find little evidence of any correlation between collectivization and the degree of innovation and motivation on the individual farm. In fact, many significant innovations, such as the Nadudvar sharecropping system or the vertically-integrated complex production systems of various crops, have come from the collective sector. Even if the investment needed for these measures lags behind industrial investment practices, the existence of innovative, locally-originated production technique utilization seems to suggest that the type of ownership is not an independent variable in innovation and motivation.

Finally, although Hungary is almost completely collectivized, small-scale production activities remain important to the economy. These small-scale activities, however, are tied to and integrated with the collectives through distributing and marketing, provision of fodder and feed grain, and fertilizer or machinery allocation. The most important labor-intensive crops still are produced in abundance on these small plots, while the maize and cereal crops, which are most capital and machinery-intensive, are produced on the large-scale lands.

In sum, Hungary is, perhaps, a unique model. Alone among the CMEA states, this country is capable of providing all the major agricultural needs of its population - dairy, vegetable, cereal, meat - without imports. Furthermore, the largest percentage of its hard currency exports to the West is in the form of agricultural products. In addition, complex agricultural systems are being exported to the developing states. Economically and politically, collectivization in Hungary has been a success. Whether the intra-class problems that result from a growing income differential in the village sphere will be successfully ameliorated, or whether they will cause significant tension in rural society, is less clear. That, however, lies outside the scope of the present examination.

NOTES

- (1) For the best study of the actual changes in agricultural population, see Bela Sarfalvi, A mezogazdasagi nepesseg csokkenese Magyarorszagon (The Decrease of Agricultural Population in Hungary) (Budapest: Akademiai Kiado, 1965).
- (2) Edit Lettrich, "Urbanization Trends in Hungary," in Hungary: Geographical Studies, eds. Marton Pecs, Gyorgy Enyedi, and Sandor Marosi (Budapest: 1971), p. 222.
- (3) Ibid., p. 224.
- (4) Ivan T. Berend and Gyorgy Ranki, Gazdasag es tarsadalom (Economy and Society) (Budapest: Magveto, 1974), pp. 445, 457.
- (5) "Magyarország földbirtokviszonyai as 1935 evben" (The Structure of Land-ownership in Hungary in 1935) Magyar Statisztikai Koslemenyek, II, 102, p. 19.
- (6) Sandor Orban, Ket agrarforradalom Magyarorszagon (Two Agrarian Revolutions in Hungary) (Budapest: Akademiai Kiado, 1972), p. 12.
- (7) Ferenc Donath, Demokratikus agrarforradalom Magyarorszagon (Democratic Agrarian Revolution in Hungary) (Budapest: Akademiai Kiado, 1969), p. 93 ff.; "1944-1954, Adatok hazank tizeves fejlodeserol" (1944-1954: Data Concerning the Ten Year Development of our Homeland), Kozgazdasagi Szemle, 2 (1955): p. 99.
- (8) Bela Fazekas, Mezogazdasagunk a felszabadulas utan (Our Agriculture Following the Liberation) (Budapest: Mezogazdasagi Konyvkiado, 1967), pp. 43; Orban, op. cit., p. 42.
- (9) Ibid., p. 45.
- (10) Ivan T. Berend and Gyorgy Ranki, Kozep-Kelet-Europa gazdasagi fejlodese a 19-20. ik szazadban (The Economic Development of Central Eastern Europe in the 19th and 20th Centuries) (Budapest: Kozgazdasagi es Jogi Konyvkiado, 1976), p. 617.
- (11) It is significant that communist commitment to collectivization was announced as early as September 22, 1945 in the "Election Program of

- the Hungarian Communist Party" in AMKP es az SZDP határozatai (The Decisions of the Hungarian Communist Party and the Social Democratic Party) (Budapest: Szikra, 1951), p. 157.
- (12) Of course, there is no doubt that Stalin also demanded that the Soviet pattern be followed. In fact, in March 1948, Stalin and Molotov cosigned a letter "suggesting" to the Central Committee of the Communist Party that it begin building socialism in the villages, e. g. start the collectivization of the land, a la the Soviet model. For further reference on the Stalin-Molotov letter see Orban, op. cit., p. 71. The last to buckle under to Soviet demands for collectivization was Imre Nagy, who held out against forced collectivization on the Soviet model until the end of 1949.
- (13) Mezogazdasagi Adattar (Agricultural Data Collection) (Budapest: Statisztikai Kiado, 1965), vols. I, pp. 12, 15; II, p. 4.
- (14) Ibid.; Orban, op. cit., p. 89.
- (15) Ibid., p. 105.
- (16) Mezogazdasagi Adattar, op. cit., II., p. 399.
- (17) Berend-Ranki, Gazdasag es tarsadalom, op. cit., p. 457.
- (18) Mezogazdasagi Adattar, op. cit., I, pp. 12, 15 and II, p. 4.
- (19) Ibid.
- (20) A termeloszovetkezeti kozos es haztaji gazdasagok kapcsolata (The Connection between the Common and Household Plots of the Collective Farm) (Budapest: Mezogazdasagi Kiado, 1971), p. 12.
- (21) Fazekas, op. cit., p. 68; Magyar Statisztikai Zsebkonyv 1976, (Hungarian Statistical Pocket Book) (Budapest: Statisztikai Kiado, 1976), p. 139.
- (22) Between 1949 and 1952, for example, agriculture received only 15 percent of the total amount of funds invested by the government! Gyorgy Ranki, Magyarország gazdasaga az elso 3 éves terv idoszakaban (The Economy of Hungary during the First Three Year Plan) (Budapest: Kozgazdasagi es Jogi Konyvkiado, 1963), p. 214.

- (23) On the differentiation of the collective farms according to profitability, see, inter alia, Karoly Garamvolgyi, Mezogazdasagunk szocialista atalakulasa (The Socialist Transformation of Our Agriculture) (Budapest: Kossuth, 1965); Istvan Molnar, "A szantoegysegre szamitott mutatoszamok torzitasa" (The Distortion of Indices Based on Units of Ploughland) Penzugyi Szemle, 8-9 (1964); Mrs. Laszlo Pali, "A mezogazdasagi termeloszovetkezetek allami tamogatasa" (The State Support of the Agricultural Collective Farms) Penzugy es Szamvitel, v. 4, No. 6 (1965); Laszlo Pallos, A kedvezotlen termohelyi adottsagu termeloszovetkezetek tamogatottsaga (The Support of those Collective Farms Having Unfavorable Productive Land Area) (Budapest: Mezogazdasagi and Kossuth, 1971); and literally dozens of briefer articles.
- (24) Ferenc Donath, "Economic Growth and Socialist Agriculture," New Hungarian Quarterly, XVII, 65 (Spring, 1977): p. 35; Zsebkonyv, 1976, op. cit., p. 92.
- (25) Donath, "Economic Growth," op. cit., p. 41.
- (26) Istvan Lazar, "The Collective Farm and the Private Plot," New Hungarian Quarterly, XVII, 63 (Autumn, 1976): p. 74. According to an earlier study, in 1970 the household plots accounted for one-third of total production of live-stock, contributing 18.7 percent of beef cattle, 30.9 percent of the swine production, 32.5 percent of all poultry-products, 41.8 percent of egg and 33.5 percent of the milk production. At the same time only 45 percent of all these products were consumed by the producers and their immediate neighborhoods. (A termeloszovetkezeti kozos, op. cit., p. 12.)
- (27) Lazar, op. cit., p. 73.
- (28) Ibid.
- (29) See Tibor Zam, "Egyenes beszéd a haztajirol" (Straight Talk Concerning the Household Plot) Elet es Irodalom, (April 16, 1977): p. 3; Tolna Megyei Nepujsg, (November 10, 1976); Heves Megyei Nepujsg, (November 14, 1976); Nepszabadsag, (December 3, 1976); Magyar Nemzet, (September 28, 1976); Partelet, Tarsadalmi Szemle, (January, 1977), Pest Megyei Hirlap, (January 15, 1977) for the most recent articles on the subject of government support to small-scale farmers.
- (30) Mezogazdasagi Adattar, II., p. 13.

6

The Politics of Agricultural Collectivization and Modernization in Czechoslovakia

Joseph Hajda

One can identify at least three stages of development in the agricultural history of Czechoslovakia since World War II.

1) 1945-48. This stage of pre-collectivization change was characterized by a massive transfer of farmland ownership to hundreds of thousands of people in the countryside, with the aim of increasing the number of small privately-owned farms. Agricultural institutions and values were modified, but not transformed.

2) 1949-59. This stage of collectivization aimed at a fundamental transformation of agriculture by gradually liquidating privately-owned farms and launching two sets of socialist agricultural production enterprises: the major one would consist of cooperative arrangements; the other would be under state management. Agricultural institutions and values underwent a profound transformation; collectivization was a move with far-reaching consequences for the sociopolitical and economic development of society.

3) 1960s and 1970s. This stage of post-collectivization change was characterized by efforts to improve and strengthen the socialist agricultural enterprises during the 1960s, and by efforts to restructure them into a highly-mechanized conglomeration of "super farms" in the 1970s. After a period of stagnation, agricultural institutions and values underwent reforms, followed by a fundamental restructuring. The reforms launched the process of advanced change and development geared to the requirements of modern-age technology and mass consumption. After 1968, agricultural change was geared also to the requirements of the era of international socialist economic integration.

THE STAGE OF PRE-COLLECTIVIZATION CHANGE, 1945-48

Before World War II inequities in farm land ownership in Czechoslovakia were considerably less prominent than in neighboring countries. Most farms were family-type, labor-intensive units of less than 5 hectares with insufficient capital. However, there were great differences in the levels of agricultural development within the country. Czech lands were among the most industrialized in Europe, and long-established, progressive tendencies in industry and agriculture contributed to Czech policy-makers' efforts to build a modern, technologically-oriented farm system. No comparable agricultural development took place in Slovakia or Ruthenia.

War damage to agriculture in the Czech lands and Slovakia - Ruthenia was annexed by the Soviet Union - was so extensive that no meaningful comparison between prewar and postwar production trends can be made without accounting for the substantial reduction in productive capacity. In 1945 agricultural production was only 56 percent of the prewar level. (1) Postwar recovery was complicated also by unfavorable weather. However, the crucial, long-run factor that affected agriculture was the political influence of the Communist Party.

Between May of 1945 and February of 1948 agriculture became an arena for political conflict over who should make decisions, who should control and regulate socioeconomic development, and whose interests should be served. While ostensibly cooperating with their National Front partners - the Social Democrats, the Czech Socialists, the Catholics, and the Slovak Democrats - the communist elite enhanced its capacity for massive restructuring of farmland ownership in the pursuit of the concept of the so-called "specifically Czechoslovak path to socialism."

The first massive transfer of land ownership took place in 1945; it involved former German and Hungarian properties as well as agricultural land confiscated from other "enemies and traitors." The land was either distributed to families of landless farm workers, tenants, and smallholders, or was placed under the administration of cooperatives, national committees, and central government authorities. The second transfer of farmland, completed two years later, set the upper limit for private farms at 50 hectares.

The Communist Party leaders perceived the official policy promoting massive restructuring of farmland ownership - and thus increasing rather than diminishing the number of farms in private ownership - as a powerful component of their overall political strategy and tactics. Their emphasis on family-oriented, small-scale farming was calculated as an important measure for shifting the balance of power permanently in their favor. Given the then-existing distribution of power in the rural areas, the policy was used step-by-step to squeeze out the non-communist parties. Meanwhile,

the communist political and economic positions were being strengthened and broadened in preparation for seizing all power and establishing a communist dictatorship. The concept of the "specifically Czechoslovak path to socialism" turned out to mean a gradual, nearly bloodless approach to finishing off politically the partners in the power-sharing arrangement.

THE STAGE OF COLLECTIVIZATION, 1949-59

After acquiring exclusive power in February of 1948, the Communist Party leaders abandoned their earlier position regarding family-oriented, small-scale farming and evolved a program of socialist transformation in agriculture. Their strong link with the Soviet Communist Party became vitally important in shaping the strategy and tactics. They looked to the Soviet Party as the guide in choosing models for developing industry and agriculture. As they acquired a resolutely Stalinist outlook and orientation, the Party leaders promoted Soviet models with fervor; and most Party members accepted the Stalinist models with passionate zeal.

The Stalinist concept of giving priority to heavy industry inspired the Party leaders to promote rapid expansion of iron and steel production for the planned armories and machine factories. The "iron and steel concept" of the economy became the basis of the First and Second Five-Year Plans. The development of agriculture and the improvement of living standards were sacrificed to attain targets in the high-priority industrial areas. Centralized-planning and decision-making, following every detail of the Soviet model, contributed to retarding agricultural development, as did the excessive bureaucratization of economic life. Single party rule, ideological exclusiveness, and centralism engendered neither economic efficiency nor popular support among the non-communist majority.

Czechoslovakia's socialist transformation in agriculture (2) was launched in 1949 by applying the principle of class struggle in the countryside, and by emphasizing the need to follow the Soviet example. The Party leaders set in operation the most massive political mobilization ever attempted in Czech and Slovak rural areas, a deliberate, forced process whose overriding political objectives were defined in conformity with Stalinist models of development. The farm peoples' social and political background and economic conditions were paramount in determining who was a "class enemy" and who was not. At the same time, the Party leaders recognized that the USSR was the major "impact-source" of agricultural policy change and development.

Collectivization was launched under conditions of rapid industrial growth, and in an environment geared to rapid socioeconomic and structural changes. The policy of pursuing the development of heavy industry at the expense of

light industry, food processing, and agriculture produced unfavorable conditions for the farm sector; and the policy of rapid socialization through administrative pressure produced an upheaval in the countryside that created disincentives to greater productivity and efficiency.

The guiding principle in liquidating the private-farm sector and replacing it by agricultural cooperatives and state farms was "the end justifies the means." Taking high risks politically and economically, policy-makers issued orders to exclude "class enemies" from decision-making in agricultural affairs. (3) Thus, decision-making was placed substantially in the hands of people with no managerial skills, no education in the fundamentals of agriculture, and no experience in successful farming. A satisfactory rate of progress in agricultural growth could not be reached when the core of the management system was an obstacle to progress - and mismanagement produced distressingly horrendous results. Under central administrative planning there was inefficiency and waste of scarce resources, insufficient growth in agricultural output and standard of living, and a host of other deficiencies. Between 1950 and 1960 the average annual growth in agricultural production was 1.4 percent, (4) the worst in the region; and between 1958 and 1962 the average cumulative rate declined by .8 of a percent (Table 6.1). Despite striking increases in investment, agriculture became a bottleneck inhibiting general economic development.

TABLE 6.1 Agricultural Output, 1958-62
(Average Cumulative Rate)

Bulgaria	5.1
Czechoslovakia	-0.8
Hungary	0.7
Poland	1.4
Rumania	4.8
USSR	1.7

Source: Economic Survey of Europe in 1963 (Geneva: United Nations, Economic Commission for Europe, 1964), Ch. I, p. 15.

Wage and income policies contributed to the enormous problems of agriculture in Czechoslovakia. Wages and personal incomes in general were low, but they were even lower in the agricultural sector. Due to the prevailing policies, wages were the most tightly-controlled item of the national economy. Wages were bound to gross output on the assumption that gains in wages must be accompanied by gains in labor productivity; (5) a lack of income incentives contributed to a decline in labor productivity and aggregate efficiency. Wage and income policies, along with rapid institutional and technological change, were conducive to moving an important share of the agricultural labor force out of agriculture and introducing into agriculture modern inputs from the nonfarm sector.

The cumulative impact of the fundamental changes in agriculture was a transformation of political behavior. The overall political aim of rapid political culture formation under the exclusive direction of the Communist Party was achieved. The pre-collectivization pluralistic culture with its varied political attitudes and behavioral norms was replaced with a culture based on the Stalinist model of one-party rule, ideological exclusiveness, and centralism. The goal of rapid expansion of production and managerial skills in agriculture was assigned a much lower priority than the goal of rapid political culture formation. Table 6.2 compares the length of Czechoslovakia's collectivization stage with its neighbors.

The program of socialist transformation in agriculture was one of high risk politically and economically because it did not offer immediate solutions to the problems of adequate food supplies and rural well-being. Instead, it offered a vague promise of a better future - eventually. If any communists were waiting for immediate results when the core of private farming was liquidated, they waited in vain. Substantially higher agricultural output, and thus standard of living, required a repudiation of Stalinist models, a move the Party leaders were unwilling to make even when collectivization was essentially completed by the end of 1959.

It is clear that a more prudent approach to the agrarian and income questions could have avoided the many "deformations" in the countryside. A pattern of policy-making and group interaction based on the concept of pluralism would have helped to steer Czechoslovakia's rural development away from the "deformations," and would have promoted an aware and capable leadership able to operate competently the political and economic institutions in rural areas. In the absence of prudent leadership, the farm people, as well as the society-at-large, had to pay a high price for the mistakes and shortcomings of national and local decision makers.

TABLE 6.2 The Length of the Collectivization Stage in Eastern Europe

	<u>Launched in</u>	<u>Completed in</u>	<u>Number of Years</u>
GDR	1952	1960	8
Czechoslovakia	1949	1959	10
Hungary	1948	1961	13
Bulgaria	1945	1958	13
Rumania	1949	1962	13
Poland	1948	--	--

Source: Compiled by the author from various sources.

THE STAGE OF POST-COLLECTIVIZATION CHANGE, 1960s AND 1970s

The anachronistic Stalinist models came under systematic criticism within the Communist Party only after collectivization failed to yield results in terms of substantially-increased productivity and living standards. Despite increased capital investments, Czechoslovakia's agriculture lagged noticeably and remained far less productive than agriculture in the countries of Western Europe with a modern industrial base. In the early 1960s, lack of growth in productivity and efficiency reached alarming proportions.

The reform-minded communists recognized the need for abandoning Stalinist models and replacing them with more modern models of development designed to stimulate production, move toward more balanced growth, and improve general living standards. While they recognized that the socio-economic conditions of the farm people should be ameliorated, they advocated neither the dissolution of socialist agricultural production enterprises nor major alterations in the formal organization of agriculture.

Economic difficulties came to a head in 1963 when Czechoslovakia experienced a marked drop in national income and living standards. It became obvious that Stalinist models could not cope with the problems at hand. Policy reforms based on new models of development seemed to offer a solution

to the dilemma. In the realm of agriculture, the accent was on a search for a long-run, equitable, and sustainable development plan for rural areas, one designed to promote rising levels of output and living and, eventually, a certain degree of food self-sufficiency. To achieve these aims, the reformers promoted new models with an empirical relationship to Czechoslovakia's own environment. They pointed out that the multi-faceted process of development required concerted efforts in farm and non-farm sectors, in health and education, in housing and recreation, and in other public services that the people required.

Gradually the direction of public policy was altered, enabling the rural population to improve its standard of living through the relatively high level of resource allocation to the countryside. Better farm management with a pipeline to the sustained flow of resources was the key to overcoming practical constraints resulting from inadequate development and utilization of technological and human resources. A high level of resource allocation was necessary to provide modern technology, adequate management tools for farm and rural development, and trained personnel willing to work in rural areas.

Entering a long period of rural development in the mid-1960s, Czechoslovakia achieved substantial progress between 1966 and 1975. A series of incremental agricultural reforms rectified the obvious mistakes and shortcomings of the socialist transformation. The reforms affected the administrative rules and decision set, and undertook a certain degree of decentralization and steps toward introducing market-oriented socialism.

Keenly interested in the broader analytical, managerial, and organizational applications of modern technology, the reformers appreciated the full impact of the scientific revolution and the role of technology in modern society. Using a more pragmatic approach in dealing with central issues of farm and rural development, they recognized the value of upgrading the farm management system, improving living conditions in farming communities, and modernizing the material and technological bases of agriculture.

The question of how to increase the availability of food and improve the general economy of the rural areas became essentially a challenge to find pragmatic answers. Sustained modernization required that agriculture be exposed increasingly to the dynamic forces of scientific and technological innovation. An up-to-date attitude toward social problems called for the gradual integration of agricultural development and economic and social progress. In short, agriculture could become more productive and progressive only by making it part of the modern era of technological progress and mass consumption. Based on progressive views of the role of agricultural enterprise and supporting institutions, and, above all, on the importance of educated farm people who could make agriculture function, public policy reforms provided a swift stimulus to the farm sector.

After their management was improved, agricultural cooperatives revitalized themselves; they made better use of available resources for the benefit of their members, thereby increasing productivity. Rising levels of output and living derived also from the advances in science and technology that were gradually adopted by state and cooperative farms with the assistance of research institutes, agricultural universities, and other agricultural schools. Sizeable resource allocations for financing agriculture began to pay dividends.

Scientific research and agricultural education played major roles in modernizing Czechoslovakia's agriculture. Coupled with efforts to upgrade the qualifications of agricultural labor, the infusion of capable graduates from three major agricultural universities - Praha, Brno, and Nitra - and from other educational institutions had a healthy effect on productivity after 1965.

During the period of economic reform, wages and salaries were increased moderately. The rate of increase in total personal income surpassed 11 percent in 1968 and 1969. The significant increase in agricultural incomes reflected a long overdue rise in procurement prices, increased agricultural output, and an even more significant increase in social security payments. (6) After tight wage control was abolished, gains in real wages did not have to lag behind overall gains in labor productivity. Compared with the pre-reform period, increase in labor productivity was substantial, as was improvement in aggregate efficiency. (7) The result was a healthy rate of growth throughout the country in general, and the agricultural sector in particular. Especially impressive was the progress made in Slovakia's agriculture.

Compared with the period between 1961 and 1965, when negative annual growth made Czechoslovakia's agricultural production the lowest in Eastern Europe, the 1966 to 1975 average annual growth was greatly improved (Table 6.3).

By 1968-69, with their incomes and social allotments adjusted to those in industry, members of agricultural cooperatives and state farm workers were enjoying general living standards equal to those of urban areas. (8) Built into the fabric of the economy and polity, the income- and welfare-equalizing measures' long-range effect on the rural scene should not be underestimated. Especially important was their role in attracting trained personnel to work in rural areas. Moreover, these measures served as powerful incentives for maintaining the cooperative farm system.

The issue of abandoning agricultural cooperatives in favor of private farm ownership was not even raised by spokesmen for the farm sector during the general reform era between January 1968 and April 1969. The basic reform statement, the action program adopted by the Communist Party Central Committee on April 5, 1968, did not speak of altering the formal

TABLE 6.3 Average Annual Percentage Growth in Agricultural Production

	<u>1961-65</u>	<u>1966-70</u>	<u>1971-75</u>
Bulgaria	3.2	4.8	2.2
Czechoslovakia	-0.2	3.5	2.9
GDR	1.2	1.9	2.1
Hungary	1.2	2.8	3.4
Poland	3.0	2.9	3.1
Rumania	2.8	4.2	4.6
USSR	2.4	3.9	2.5

Source: Statisticheskij Jezhegodnik Stran-Chlenov SEW, 1972 (Moscow: 1972), and Economic Survey of Europe in 1976: Part II (New York: United Nations, Economic Commission for Europe, 1977), p. 29.

organization of agriculture in any major way. It said that "it will be expedient to make individual cooperatives independent economic and social organizations with full rights, abolish the impractical administrative centralization of cooperatives, and create only such bodies over cooperative enterprises whose economic activity is advantageous for them." (9) The program advocated "the right of unified agricultural cooperatives to do business also in other branches, and the possibility of selling part of the farm products directly to the population and to retailers." (10) At the same time, the program affirmed that "the party considers the development of agricultural production in cooperatives and state farms to be the decisive line of large-scale production in agriculture." (11)

The new models not only exerted influence over defining issues, but also had a direct impact on the overall character of sociopolitical and economic development in Czechoslovakia. A fundamental transformation of political behavior took place in 1968, and an unprecedented modern system began to take shape. As they sought "socialism with a human face," the var-

ious elements of the reform movement contributed to independent Czechoslovak experiments in public policy, and to a pattern of policy-making and group interaction based on the concept of pluralism.

In contrast to the highly-turbulent environment in large metropolitan areas, relative tranquility permeated the process of political culture formation in rural areas. The farm sector demonstrated that it was possible to promote reforms without jeopardizing too much and without taking too great risks. Yet the new pattern of policy-making and group interaction promoted an aware and capable leadership in agriculture, and one able to operate competently the political and economic institutions in Czech and Slovak rural areas.

The Soviet-led occupation of Czechoslovakia was generated for a variety of reasons, none of them stemming from rural unrest or agitation. During the brief period when the general reform movement's main activity was non-violent resistance, the village people generally preferred to abstain from deep involvement. Following the occupation, many supporters of the reform movement were forcefully removed from their posts, and the character of public policies was redefined to conform with the Soviet communist leaders' demands. Shortly after "consolidation" efforts were stepped up, the political capacity of the general reform leaders was decisively eliminated. However, the efforts to prevent reform concepts from exercising any uncontrolled or undesirable influence over sociopolitical and economic development were not accompanied by a campaign to restore the discredited Stalinist models of development.

While they expressed appreciation of the farm people's political behavior during the general reform period, post-1968 communist leaders proceeded to change the pattern of policy-making and group interaction in the agricultural realm in the same way they changed it in other public domains. They asserted their primacy in shaping the formal public agenda according to current agricultural policies of the Soviet Union; their goal was the creation of a highly-advanced agriculture.

The announced strategy of fundamental reorganization in the structural framework had three main components: consolidation, specialization, and cooperation. (12) Rationalization, without any liberalizing implications, replaced reform as the key characteristic of moves toward more balanced growth. For example, efforts to intensify crop production were to be based on biological rationalization, the most important element of which is the broad use of modern inputs. Optimization became a key concept, resting on the conviction that optimization was better than maximization, and that intensive economic growth required emphasis on optimization.

Consolidation was based on the assumption that larger production units would offer faster and more economic results, which were defined in terms of the preeminent goals of productivity and efficiency, and that the new agglom-

erations of cooperatives and of state farms would provide better avenues toward transforming the agricultural processes into variants of industrial production.

The trend toward large scale agricultural production units already was becoming visible in Czechoslovakia in the 1950s and the early 1960s. Between 1961 and 1970 agricultural cooperatives declined in numbers from 12,560 to 6,270 but grew in size; by the end of 1975, the number was 2,747 and the average size of a cooperative had increased to 1,525 hectares. The number of state farms declined to 251 by 1975, with an average size of 5,740 hectares. (13)

Closely linked with the consolidation strategy was the policy of production specialization and interenterprise cooperation. This policy derived from the need to accelerate the process of applying scientific and technological improvements, and was designed to bring cooperative conglomerations and state farms together gradually and harmoniously, blending them until they became quite similar.

It appears that substantial progress was made in the middle 1970s in applying results of the scientific revolution and technological change to agriculture, and toward evolving "super farms" operated with sophisticated agrotechnology. (14) A variety of modernizing efforts were put forth to solve the complicated problems of agriculture: attempts were made to expand the use of computer technology in agricultural planning and management; long-term planning was applied in the form of a perspective outlook in the realm of food and agriculture for the period between 1975 and 1990; there was a recognition of forecasting and futurological studies as urgent tasks based on the need to anticipate and to evaluate the future impact of science and technology on society, the various sectors of the economy, and the polity; and efforts were made to use information theory, decision analysis, and systems analysis to improve planning and management.

The drive to use sophisticated agrotechnology did not change the relative importance of the unified cooperatives or state farms. The cooperatives remained decisively important in agricultural production in the 1970s. They had the biggest share of land under cultivation and their agricultural output was the greatest. State farms represented a substantially smaller sector. Land under cultivation in 1975 reflected each sector's relative size and importance. Of the country's approximately 5 million hectares of arable land, the cooperatives cultivated about 3.25 million; the state farms, 1.4 million; and private farms, .2 million. (15)

The findings of a local study seem to point to a general character in each sector's performance in recent years. Comparing the economic performance of the state farms with the unified agricultural cooperatives in the Rimavská Sobota district of Slovakia between 1968 and 1972, the study found that the cooperatives achieved substantially better economic results than

state farms. Among the main reasons for the state farms' shortcomings were insufficient material interest and unsatisfactory management. (16)

The role of individual plots and private farms can also be seen in terms of their contribution to the overall food supply. In 1975, for example, the private sector accounted for 48 percent of the eggs produced; however, it contributed only 7 percent of the livestock, 11 percent of the pigs, 15 percent of the meat, and 2 percent of the milk. The percentage share of agricultural land in Czechoslovakia's individual plots and private farms was relatively small (Table 6.4).

TABLE 6.4 Distribution of Agricultural Land in 1975
(Percentage Share: Total = 100)

	<u>State Farms</u>	<u>Collective Farms</u>	<u>Individual Plots and Private Farms</u>
Bulgaria	90.3		9.7
Czechoslovakia	30.3	62.9	6.8
GDR	7.5	86.5	6.0
Hungary	15.0	78.2	6.8
Poland	16.8	1.6	81.6
Rumania	30.1	54.0	15.9
USSR	64.9	33.6	1.5
Byelorussian SSR	35.0	59.2	5.8
Ukrainian SSR	23.0	71.2	5.8

Source: Economics Survey of Europe in 1976: Part II (New York: United Nations, Economic Commission for Europe, 1977), pp. 34-35. Agro-industrial combines in Bulgaria accounted for 85.5 percent of the total.

At least as important as changes in the organizational structure, wage and income policies also suggest a gradual blending of cooperatives and state farms. After 1969 tight wage controls were reintroduced, and the growth rates in wages and personal incomes slowed to about one-half their 1968-69 rates. Labor productivity continued to grow, but at somewhat lower rates than in the reform years. The gains were brought about by using larger increments of capital stock per person employed. (17) The growth of gross agricultural production between 1970 and 1974 was respectable, but poor weather was responsible for negative growth rates in 1975-76. Despite unfavorable weather conditions, 1977 agricultural production was the highest since 1945.

Efforts to consolidate, specialize, and industrialize the farm sector were launched with the political goal of food self-sufficiency, and with the long-term goal of providing abundant food supplies. Animal, poultry, and dairy production grew significantly after the mid-1960s. Apparently, self-sufficiency was achieved in the mid-1970s in poultry meat, butter, and eggs. (18) Looking at growth rates in grain production - average yields of cereals per hectare increased from less than 22 quintals in the early 1960s to over 39 quintals in 1974 - the policymakers had good reason to feel optimistic. It appeared that the accent on more sophisticated analytical aids, modern managerial techniques, and new organizational forms, along with strengthened research and better training of agriculturalists, would move grain production closer to the political goal of self-sufficiency. Between 1966 and 1975 Czechoslovakia's average annual grain yields were among the best in Eastern Europe (Table 6.5). Moreover, its yields were more than double the yields recorded in the USSR, and were increasing more rapidly. This reflected not only differences in natural conditions but in the degree of efficiency, since similar advanced agricultural technologies were applied in both countries.

However, as Czechoslovakia's recent crop harvests have demonstrated, there is no guarantee of favorable weather patterns. Should climatological disturbances intensify in the years to come, agriculture might not be as important a stabilizing and dynamic factor of economic development as policy makers hoped it would be.

The extent to which agriculture was important in Czechoslovakia's economic development in the period between 1950 and 1975 can be determined by appraising its contribution to overall economic growth: it increased agricultural production while transferring capital and labor to other sectors of the economy; and, through consolidation, it enabled the government to apply land that had formerly been agricultural to other uses.

In light of the slow rate of growth of agricultural output in the 1950s and the early 1960s, agriculture's contribution to the overall economic growth in Czechoslovakia during that period was unsatisfactory. Then re-

TABLE 6.5 Average Annual Grain Yields
(In Quintals per Hectare)

	<u>1966-70</u>	<u>1971-75</u>
Bulgaria	27.4	33.1
Czechoslovakia	26.6	33.9
GDR	29.4	35.7
Hungary	25.4	35.0
Poland	19.8	25.1
Rumania	19.4	24.1
Eastern Europe	22.7	28.9
USSR	13.7	14.7
Byelorussian SSR	13.1	21.3
Ukrainian SSR	21.4	24.7

Source: Economic Survey of Europe in 1976: Part II (New York: United Nations, Economic Commission for Europe, 1977), p. 56.

forms provided preconditions for a sustained, respectable rate of growth in the farm sector. Starting in the mid-1960s, agriculture became a dynamic factor in national economic development. Using 1966 as the base (=100), the index of gross agricultural production stood at 114 in 1970, and at 127 in 1973. The index of net production - used in determining the labor productivity and agriculture's share of the national net material product - rose to 113 in 1970, and reached 118 in 1973.

Measured in constant prices, the 1974 gross agricultural output was almost twice that of 1948 - the last pre-collectivization year. The 1974 shares of crop and animal production were some 55 percent and 45 percent, respectively, a pronounced change in favor of animal production when com-

TABLE 6.6 Gross and Net Agricultural Production
(In Constant 1967 Prices and in Million Ksc)

<u>Production</u>	<u>1966</u>	<u>1970</u>	<u>1973</u>
Gross	58.9	67.1	75.3
Net	23.8	26.8	28.0

Source: Jaroslav Kabrhel et al., Základy zemědělské politiky KSČ (Prague: 1976), p. 205.

pared with the late 1940s. (19) At the same time, agriculture's share of the national net material product declined from 20.4 percent in 1948 to 10 percent in 1973. (20)

Capital from agriculture was transferred to other sectors of the national economy between 1948 and 1952, when farm prices were low compared with other prices. Starting in 1953 the price relationship was adjusted and a greatly increased volume of productive resources was allocated to agriculture. However, the massive material inputs into agriculture from the nonfarm sectors did not produce a sustained, respectable growth of output until the economic reforms of the mid-1960s. Rapid mechanization then led to a spectacular increase in the consumption of energy and fuel, as well as to an increase in the use of fertilizers, other chemicals, and agricultural machinery. From 1948 to 1973 agriculture's fixed capital per hectare of agricultural land increased more than three times, and it increased more than six times for each person employed in agriculture. (21) Following these massive inputs, which were accompanied by improvements in income and social services for the farm people, the direction of overt capital transfers from the other sectors of the economy to agriculture remained unchanged after 1965.

From 1948 to 1960 the transfer of labor from farms to other sectors of Czechoslovakia's economy was agriculture's most important contribution to overall national economic growth. In 1948, 2,222,000 persons were employed in agriculture; this constituted more than 20 percent of the total labor force. Until 1960, when the farm population numbered 1,357,000, the agricultural sector lost an average of 72,000 workers each year. This trend diminished, however; between 1960 and 1975 there was an average annual decline of 24,500 farm workers. (22) By 1975, somewhat less than 1,000,000 people,

TABLE 6.7 Investment in Agriculture
(In Constant 1967 Prices and in Millions of Kcs)

	<u>Total</u>	<u>Annual Average</u>
1951-55	15,302	3,060
1956-60	35,433	7,087
1961-65	41,994	8,399
1966-70	43,178	8,636
1971		9,283
1972		10,179
1973		12,142

Source: Kabrhel et al., op. cit., p. 69.

TABLE 6.8 Employment in Agriculture

	<u>Number Employed</u>	<u>Average Annual Decline</u>	
1948	2,222,000		
1960	1,357,000	1948-60	72,000
1975	989,000	1960-75	24,500

Source: Kabrhel et al., op. cit., p. 170.

who made up 12 percent of the country's labor force, were employed in the agricultural sector: only 59,000 persons remained in small-scale private farming; 671,000 were employed in the unified agricultural cooperatives down from nearly 900,000 in 1960; and 252,000 worked on the state farms, up from 170,000 in 1960. (23) Although there will be a decreasing number of young people required by agriculture for production-related jobs, this is not expected to transfer large numbers of laborers to other economic sectors. The retirement of elderly farmers will be primarily responsible for future decline.

Agriculture has also made a significant contribution to overall economic growth by transferring the land from agricultural to other uses; the expansion of transportation and communications systems has made possible the urbanization and industrialization of what were once farmlands. About 102,000 hectares of agricultural land were transferred between 1950 and 1960; 172,000 hectares were transferred between 1960 and 1970; and additional agricultural land transfers took place during the 1970s. These figures clearly emphasize the need for production intensification.

TABLE 6.9 Agricultural Land
(In Millions of Hectares)

1950	7,367
1960	7,265
1970	7,093
1972	7,071

Source: Zemědělská ekonomika (Prague: April-May 1974), p. 308.

Data regarding gross agricultural production, along with data on capital, labor, and land transfers, provide meaningful indicators of agriculture's contribution to overall economic growth. They illustrate the nature of economic development, i. e., the process through which Czechoslovakia increased its capacity to meet the needs of its people. However, the indicators do not provide a direct answer to the question: How successful was

Czechoslovakia in meeting the food needs of its people? A look at the trends in imports of agricultural products and at calorie supply per capita helps answer the question.

The general course of agricultural imports and the growth in various production categories reveal a trend that points toward eventual self-sufficiency. Although agricultural trade increased in absolute terms in the 1970s, the relative importance of food imports decreased. The size of the trade deficit in "live animals and foodstuffs" reflects the post-1965 improved performance in the agricultural sector. The extent to which agriculture was an important factor in contributing to food consumption can be seen by looking at Czechoslovakia's 1974 per capita ranking in nutrition. While it ranked twenty-sixth among the world's countries in per capita GNP (=\$3,343), Czechoslovakia ranked eight in per capita supply of food in calories per day (=3,496) and third in terms of United Nations Food and Agricultural Organization (FAO) calorie requirements (=142%). In calorie supply per capita it was only slightly behind the United States (=3,504). (24)

It appears that a moderate success in adequately feeding the population was achieved by the mid-1970s. Compared with people in other advanced economies, the people of Czechoslovakia were enjoying a generally high level of food consumption. (25)

AGRICULTURE AND THE COUNCIL FOR MUTUAL ECONOMIC ASSISTANCE (CMEA)

Czechoslovakia's situation in the 1970s shows the importance of external linkages on matters pertaining to the definition of issues and the regulation of overall sociopolitical and economic development. Displaying high sensitivity to external forces, all spheres of public life sought to adjust to these linkages.

The adjustment in the realm of agriculture meant strengthening links with the Soviet Union and her allies. This was facilitated by bilateral and multi-lateral agreements that extended into national and subnational institutions. The USSR again became the decisively important "impact-source," and policy could not be made without internalizing Soviet norms and weighing carefully Soviet trends and tendencies. The Soviet Communist Party had to be looked upon as the "guiding party" once again, thus restoring the unity of strategy and tactics, fixing the source of proper inspiration, and rejecting the possibility of any significant degree of autonomous behavior. Soviet models of development designed for the 1970s conditioned the treatment of agricultural issues and policies in Czechoslovakia.

Czechoslovakia's increasing linkages in agricultural affairs with the Soviet Union and the other members of the East European alliance became visibly manifest in the 1970s in CMEA. Apparently, the orchestration of agricultural planning and advanced research made considerable progress under this evolving international economic system. (26) CMEA's program and operating procedures were used as points of reference in articulating Czechoslovakia's long-range strategy of agricultural development. The network of scientific cooperation with the Soviet Union and the other CMEA members was expanded through organized bilateral contacts and international coordination centers. Czechoslovakia's research centers were assigned responsibility for coordinating efforts in mechanization, electrification, and automation of crop- and animal-production processes, for applying econometric methods and computer technology, and for improving poultry control and testing. (27)

The importance of international cooperation in scientific research should not be underestimated. Among the Soviet wheat varieties used in Czechoslovakia, the Mironovskaya varieties of winter wheat showed exceptionally great potential productivity and produced harvests of 50 to 60 quintals per hectare. In 1974 a crop of Mironovskaya-808 wheat yielded 109 quintals per hectare.

The post-1968 leadership looked at the way the fates of the CMEA countries were linked together in terms of "indivisible basic interests," "unbreakable relationships," "continuing interdependence," and "sustained interaction"; and they concluded that further intensification of cooperation and development of socialist economic integration was vitally important. Clearly, interdependence and interaction included, among other things, matters pertaining to food and agriculture: enterprise restratification, concentration on production specialization and intensification, use of improved wheat varieties, dependence on Soviet energy resources, and trade in agricultural products.

One of Czechoslovakia's highest political authorities expressed hope in 1975 that economic development would create favorable conditions not only for greater international coordination with the Soviet Union and the other CMEA members, but also for convergence of economic policies. He argued that the socialist states' development and convergence were two sides of the same process, by means of which economics, politics, and ideology would be internationalized, and cohesion strengthened. (28)

A scenario published in 1975 stated that broadening the base for internationalizing various economic sectors would lead to integration through joint economic planning which could be initiated on a bilateral or trilateral basis. According to this scenario, joint planning would be a means of coordinating both long-term and medium-range, or five-year, plans. The long-term plans would contribute to harmonizing investment activities; the

five-year plans would ensure a unified approach to structural, procedural, and managerial policy changes and development. This unified approach would lead to new organizational forms of economic and scientific-technical cooperation, and to joint measures toward stimulating production and multi-lateral trade growth.

The scenario envisaged new forms of joint planning - including long-term, multi-lateral agreements for production specialization and division of responsibilities in specific branches of agriculture - along with new agreements on basic conditions for mutual deliveries of agricultural products. The contemplated changes would lead to uniform agricultural policies as a necessary aspect of the socialist economic-integration program. In harmony with the basic principles of the CMEA program, the policy would unify the course and forms of the member states' national policies step by step. It would implement common measures toward an intensified division of responsibilities and would create an effective economic mechanism for that purpose. (29)

The scenario is derived from the basic premises of economic and social planning that developed in post-1968 Czechoslovakia. Operating under conditions of central administrative planning, the policy-makers would shape national goals and forecasts pertaining to agriculture in a way consistent with three basic premises: national economic and social plans are not isolated plans of a single country; national goals and forecasts cannot be realized without broad economic cooperation with the Soviet Union and the other CMEA members; and progress toward realizing the various components of national goals and forecasts depends directly or indirectly on harmonizing them with national economic plans of the Soviet Union and the other CMEA members.

Promoting the vision of a new system of socialist relations as an explicit dimension of their highly self-conscious goal orientation, the communist leaders of Czechoslovakia found other important reasons for greater cohesion in the Soviet alliance system. In their opinion, socialist economic integration is vital in the "class struggle with imperialism," which requires a systematic effort not only to strengthen the position of socialist states in the world economy, but to improve their public image in world politics as well. Hence, they emphasized the need for CMEA members to further expand and intensify their cooperation. The vision of a strengthened socialist commonwealth and the promotion of socialist economic integration should be pursued as "the most effective way to convince countries, worldwide, of the attractiveness of socialism, and to demonstrate beyond doubt that the socialist system has become the decisive force in determining world trends." (30)

Because it is an important component of life-support systems, agriculture could be a good indicator of whether or not socialist economic integration can be attained - and at what cost - in the years to come.

However, Czechoslovakia is also linked to the international economic system, which does not operate under the conditions of Communist Party rule and is not held together by Soviet orchestration. Hence, policy-makers must cope with problems associated not only with socialist economic integration, but also with the many infirmities and instabilities generated in the rapidly changing world economy. Czechoslovakia, with highly developed industry and agriculture and inadequate energy and raw materials, cannot isolate itself from the effects of worldwide inflation, foreign exchange pressures, raw material price fluctuations, or energy supply problems.

CONCLUSION

Imposed in the period between 1949 and 1959 under the conditions of Stalinist rule, collectivization in Czechoslovakia attacked comprehensively established institutions, values, practices, and the political capacity of its "enemies." Based on Stalinist models of development, agricultural transformation was rapid and fundamental. Under the impact of rapid institutional and technological change, an important share of the agricultural labor force was moved out of agriculture. Marred by a wasteful and inefficient disposition of resources, collectivization was an expensive undertaking.

Czechoslovakia's experience shows that basic structural changes in the organization and management of agricultural production should never be in the hands of people who lack managerial skills, education in the fundamentals of agriculture, and experience in successful farming. Poorly qualified managers mismanage agricultural enterprises on both the national and local levels; they misallocate resources, hamper innovation, promote inefficiency, retard production, and obstruct the general economic betterment of the rural sector. If policy-makers fail to grasp the importance of a fair income and other incentives for the farm people and treat the "class enemies" as criminal elements, the immediate consequences of socialist transformation can be horrendous.

Czechoslovakia's experience offers counsel not only about roads to avoid but also about roads to take in the search for economically, macro-economically, and socially viable agricultural development. The main stimulus for reform was failure; after the initial period of mistakes and shortcomings, the reform-minded policy-makers gradually introduced policy changes to modernize the agricultural sector. Poorly qualified managers were replaced by more capable individuals, including many former political opponents. The promise of an attractive income and other incentives protected the farm population against instability caused by the vagaries of weather and short-run inelasticities of supply and demand. Material and status supports dis-

placed the value system, which had held farming and agricultural-service functions in low esteem.

Recognizing that success in agricultural production depends on expanding and improving technical knowledge and skills specific to each particular area, the Czech and Slovak policy-makers allocated funds for a long-term investment in agricultural research and education. This scientific research contributed significantly to development in the field of agriculture; Czechoslovakia is one of the most technically advanced countries in the world. Clearly, the post-1968 accent on rationalization reaffirmed the views of the reformers that science and technology are the main factors of modern production.

Czechoslovakia's model showed that, given favorable natural conditions and an advanced stage of development, a country can - by prudent action of public policy-makers and good farm management - simultaneously increase the availability of food and achieve general economic betterment of the rural sector. It also showed that it is critical for a government to establish the appropriate priorities and to organize the country's resources to provide adequate food and nutrition for all.

Czechoslovakia's experience points out that agriculture is not isolated from other parts of a nation's economy; rather, the farm people's needs and the other economic sectors interact in a complex way. Moreover, the agricultural situation of a country cannot be isolated from that of other countries.

Farmers need adequate supplies of seed, fertilizer, pesticides, machinery, energy resources, and irrigation systems. They need reliable advice on new developments in agricultural technology and on livestock and plant diseases. They also need financial and social support, fair prices and reasonable security of tenure, adequate health care and good housing, equitable educational opportunities, and satisfactory recreational programs. To satisfy those needs, the economy as a whole must be in an advanced stage of development. It can be argued that the most basic human need of farm people is a prosperous society at large whose members can afford to pay for a good and varied diet. Therefore, in appraising agricultural development, one should consider how agriculture is linked with the nonfarm sector and what it is contributing to society. The closer one looks at the shifts in communist policy in Czech agriculture, the better one realizes how important it is to view the variance in national food and agricultural policies, each designed to secure a particular kind of society.

In appraising the changing face of a country's agriculture, trade linkages and other variables in the international economy cannot be ignored. The link between agriculture and the nonfarm sector grows stronger as institutional and technological changes move an important share of farm labor out of agriculture and introduce into agriculture modern inputs from the nonfarm sector.

The purpose of this assessment cannot be to elaborate guaranteed perspectives of agricultural development in Czechoslovakia in the years to come. Like any other attempt to assess the impact of forthcoming agricultural issues and policies, such an effort would be marked by uncertainty. However, existing trends and tendencies suggest the following evolution: there will be a declining rate of employment in agriculture; various components of the agricultural labor force will be upgraded; state and cooperative farms will be modernized and integrated; additional land will be transferred from agricultural to other uses; an all-embracing industrial-agricultural complex will be created; greater self-sufficiency and higher levels of consumption will be attained; and Czechoslovakia, the Soviet Union, and other CMEA countries will be integrated with regard to the components of economic planning and advanced agricultural research.

In short, the process of advanced change and development in Czechoslovakia's agriculture is likely to remain responsible to the pressure to adapt to the requirements of the modern age of technology and mass consumption on the one hand, and the era of international socialist economic integration on the other.

NOTES

- (1) United Nations, Economic Survey of Europe in 1948, Economic Commission for Europe, 1948, Geneva, p. 11.
- (2) For a discussion of agricultural policy evolution see Joseph Hajda, "Principal Characteristics of Agricultural Policy Trends in Czechoslovakia," in The Future of Agriculture in the Soviet Union and Eastern Europe: The 1976-80 Five Year Plans, eds. Roy D. Laird, Joseph Hajda, and Betty A. Laird (Boulder: Westview Press, 1977), pp. 149-69.
- (3) In a Communist Party Central Committee resolution, issued in November, 1948, quoted in Jaroslav Kabrhel et al., Základy zemědělské politiky KSČ (Prague: 1976), p. 6.
- (4) V. Jeníček, "Tendence rozvoje čs. zemědělství a výživy do roku 2000," Politická ekonomie (September 1975): p. 853.
- (5) B. Korda, "A Decade of Economic Growth in Czechoslovakia (1962-73)," Soviet Studies (October 1976): p. 514.

- (6) Ibid., p. 515.
- (7) Ibid., p. 518.
- (8) Personal experiences and interviews in Czechoslovakia in 1968 and in 1969 were a rich source of insights about the developments in the realm of agriculture in the 1950s and the 1960s.
- (9) Robin A. Remington, Winter in Prague: Documents on Czechoslovak Communism in Crisis (Cambridge: MIT Press, 1969), p. 117.
- (10) Ibid., p. 116.
- (11) Ibid.
- (12) See Jaroslav Kunc et al., Kanocentrace, specializace, a kooperace (Prague: 1974).
- (13) J. Kabrhel et al., op. cit., p. 9.
- (14) For an overview see Vladimír Jeníček, "Charakteristika dosavadního vývoje čs. zemědělství a výživy," Zemědělská ekonomika (April 1975): pp. 225-50.
- (15) "The Principles of Co-operative Agriculture," Československý svět (September 30, 1976): p. 18.
- (16) Pavol Buchta, "Príčiny rozdielných výsledkov hospodarenia ŠM a JRD v okrese Rimavská Sobota," Zemědělská ekonomika (November 1974): p. 764.
- (17) B. Korda, op. cit., p. 518.
- (18) V. Jeníček, op. cit., p. 239.
- (19) Ibid., p. 11.
- (20) Ibid., p. 19.
- (21) Ibid., p. 10.
- (22) Ibid., p. 161.

- (23) Ibid. , p. 170.
- (24) Ruth Leger Sivard, World Military and Social Expenditures, 1977 (Leesburg: 1977), pp. 24-25.
- (25) Interactions with visiting Czech and Slovak scholars at Kansas State University in 1972-75 provided considerable insights about Czechoslovakia's agricultural development in the 1970s, as did interviews with Czech and Slovak agriculturalists and nonagriculturalists in 1977.
- (26) See for example J. Vološin, "Komplexní program socialistické ekonomické integrace...", Zemědělská ekonomika (May 1975): pp. 357-62; Zoe Klusáková-Svobodová, "Mezinárodní socialistická integrace zemědělství," Politická ekonomie (September 1975): pp. 836-49.
- (27) The Czechoslovak Agriculture (Prague: March 1974), p. 3.
- (28) Czechoslovakia's Foreign Minister Bohuslav Chňoupek in an article, "Důležitý mezník na cestě spolupráce," Československý svět (August 22, 1975): p. 3.
- (29) J. Vološin, op. cit. , p. 358.
- (30) B. Chňoupek, op. cit. , p. 3.

7

The Impact of Agricultural Collectivization on Productivity in China

Benedict R. Stavis

HYPOTHESES

This volume set out to determine whether collectivized agriculture is inherently less efficient than private agriculture, and whether the manner in which collectivization is carried out affects its productivity and impact on political stability and legitimacy. I believe that the data from the Chinese experience do not support a positive answer to these questions, but rather suggest the following hypotheses:

1. Both collective and private agricultural systems have short-term and long-term efficiencies and inefficiencies. Which one is more or less efficient depends on a wide range of environmental, technological, and socio-economic factors. It is important to know what is included in the measure of efficiency, and in the time-frame adopted.

2. While the manner in which collectivization is carried out is important, it is essential that collectivization be seen as one step in a process of creating new rural institutions. The way land reform is carried out before collectivization and the way the post-collectivization institutions are modified are equally as important, if not more so.

3. The long-term productivity of agriculture may depend less on whether the basic institutions are private or collective than on the underlying agricultural policies regarding price, investment, and receptivity to science and technology.

4. Collectivization of agriculture has major equity efforts on the rural society.

5. Collectivization of agriculture changes the rural political structure and, therefore, changes potential political alliances. Hence, collectivization can affect macro-economic policies that shape long-term productivity.

COLLECTIVE AGRICULTURE IN CHINA

China's agriculture is basically collectivized. Between 90 and 95 percent of the farmland is collectively owned. Virtually all grain, fiber, and oil crops are collectively produced; and large amounts of vegetables, fruits, and animal products are collectively produced for major urban markets. The private sector is small, with private garden plots occupying about 5 to 10 percent of the cultivated land. (1) These provide fruits and vegetables for home consumption and a substantial portion of animal husbandry - primarily hogs and poultry. This 5 to 10 percent of the land provides about 20 percent of farm income, (2) not because of great efficiency but simply because this land is used to produce high value commodities. (3)

In a narrow sense, collectivization of agriculture was established in 1955 and 1956, when the majority of China's peasant families joined Agricultural Producer Cooperatives (APCs). These APCs were then transformed into larger, "higher level" APCs in which people were paid solely according to their labor, and no longer according to capital shares (Figure 7.1).

In a broader sense, however, collectivization was a process that extended over many years. An integral first steps was a land reform program that was carried out between 1949 and 1950. It partially equalized land holdings and, more importantly, it weakened the rural political elite so that they would not be able to dominate future collective institutions. Mutual Aid Teams (MATs) were set up after land reform to simplify labor exchange and joint purchases of inputs. Often the MATs were based on preexisting informal labor exchange groups. In 1955, lower level APCs were established, often by merging and formalizing MATs. These cooperatives averaged 27 households and distributed profits according to the number of capital shares held by each household. In 1956 the lower APCs were merged into higher APCs, averaging 145 families. In 1958 higher APCs were combined and merged with local government institutions to create the People's Commune. At first there were 26,000 communes, each comprised of about 20,000 people. By 1963, however, the communes were divided into 76,000 units, with approximately 7,000 people in each unit. Moreover, the three levels of ownership in the commune - the commune, the brigade (with 1-2,000 people), and the team (with about 100 people) - were given quasi-legal status. During the four-clean movement of 1963-66, the system was consolidated and leadership reviewed. The process of institutional transformation had lasted about 17 years.

Why did the Chinese collectivize agriculture? What benefits did they think would outweigh the risks? The major arguments in favor of collective ownership were developed by Mao Tse-tung in his July 31, 1955 speech, "On

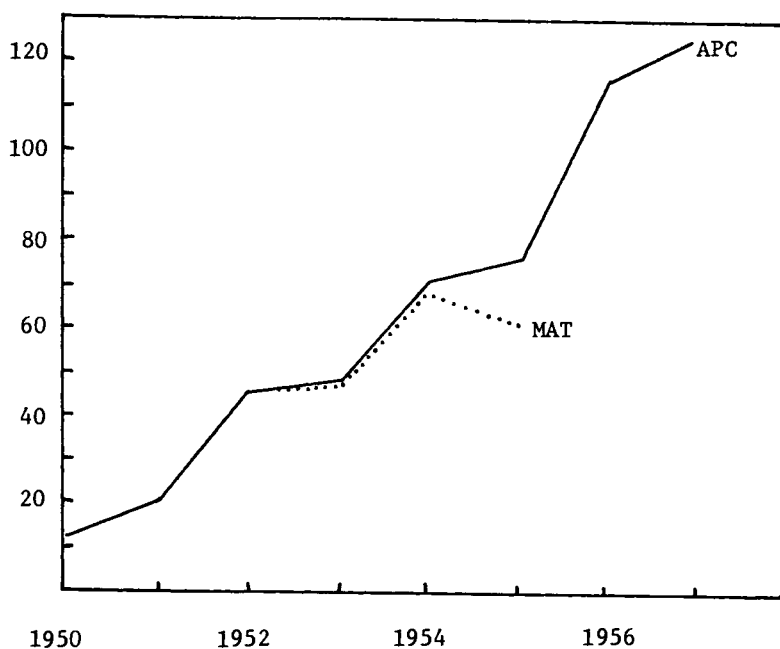


FIGURE 7.1 Households Participating in Cooperative Agriculture
(In Millions of Households)

Source: Nai-ruenn Chem, Chinese Economic Statistics (Chicago: Aldine, 1967), p. 370-371.

the Question of Agricultural Cooperation." (4) Mao's reasons were not so much ideological as economic and political. From the economic point of view, Mao considered collective agriculture necessary for several interrelated reasons. Through increased scale of operations and better labor organization, collective agriculture would be able to assure increased production. Using empirical observation Mao noted that about 80 percent of the experimental cooperatives had increased production. (5) Table 7.1 summarizes some of the surveys upon which Mao relied. According to these surveys, the average cooperative member had a higher standard of living than the middle peasant. The average family in a cooperative could spend a third or more on production expenses, thus assuring the cooperatives of greater growth potential. A sub-sample of advanced cooperatives seemed even more prosperous. Because cooperatives had been formed largely by poor peasants, the success was especially impressive. It is not known whether the survey reports were corrected for any state aid that the cooperatives may have received.

The importance of this expectation of increased production should not be underestimated. Figure 7.2, based on official Chinese statistics, shows that grain production increased after land reform, but in 1953 and 1954 it almost leveled off. Cotton production rose rapidly until 1951, reflecting the return of available acreage to the pre-war level; it then leveled off, and actually declined in 1953 and 1954. Whether or not these figures are accurate, they were believed by the Chinese leaders, who used them to influence policy.

Su Hsing, a Chinese economist, summarized the situation in 1953 and 1954 in these strong terms: "Agricultural production virtually came to stagnation in the two years under review." (6) One result of this stagnation was a sharp reduction in industrial growth, after a lapse of one year. The stagnation in grain production led to a fairly serious grain crisis in the end of 1954 and in early 1955 before the first harvest. Peasants were eating tree bark and raiding government granaries in some places. They also began to migrate to urban centers, despite the lack of employment opportunities and food shortages there. (7)

The increased production anticipated as a result of collectivization would make more grain and specialized agricultural products available to the state for urban and industrial use. Mao noted:

In the first place, as everyone knows, China's current level of production of marketable grain and industrial raw materials is very low, whereas the state's needs for them is growing year by year, and this presents a sharp contradiction. (8)

TABLE 7.1 Comparison of Income from Cooperative and Private Farming, 1954

Class of Farmer	Family Income	Total Family Income (yuan) ^b	Total Income per Capita (yuan) ^b	Production Expenses per Family (yuan)	Average Income per Mou* (yuan) ^a
	Derived from Farming (yuan) ^a				
Advanced Cooperative				234 ^c	
All (average) Coop	466.4	904.20	177.30	107 ^c	28.8
Hired Laborer and Poor Peasant	272.6	488.70	116.40	30.3 ^d	24.3
Middle Peasant	479.7	774.40	154.90	79.8 ^d	27.1
Rich Peasant	860.6	1,297.00	209.20		27.7
Former Landlord	286.0	497.20	118.40		22.3

* 1 mou = .16 acre

Sources: a. Tung Ta-lin, Agricultural Co-operation in China (Peking: Foreign Languages Press, 1959), p. 22.b. *Ibid.*, p. 35. Includes cooperative members' contribution to public funds.c. From T'ung-chi Kung-tso T'ung-hsun, No. 17 (1956). Cited by Peter Schran, The Development of Chinese Agriculture, 1950-1959 (Urbana: University of Illinois, 1969), p. 124.d. "Simple Data for Survey on Income and Expenditure of Peasant Families in 1954," T'ung-chi Kung-tso No. 10 (1957). Cited by Su Hsing, "The Struggle Between Socialist and Capitalist Roads in China After Land Reform," Ching-chi Yen-chiu No. 7 (July 20, 1965). SCMM 495 p. 13.

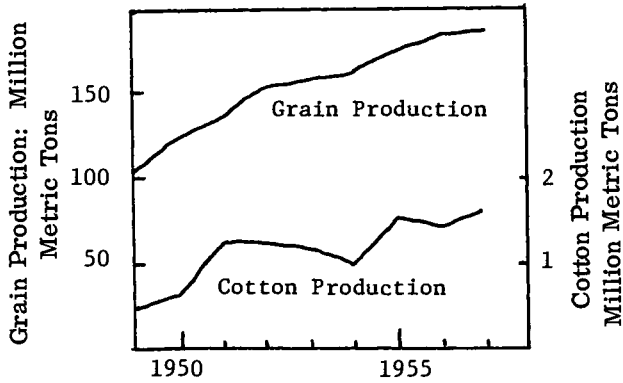


FIGURE 7.2 Official Estimates of Grain & Cotton Production, 1949-57

Source: Nai-ruenn Chen, Chinese Economic Statistics (Chicago: Aldine, 1967), p. 338.

Mao suggested that collectivization would simplify the collection of agricultural taxes and the procurement of commodity grain; during the 1920s the Soviet Union faced the problem of procuring grain and other materials and adopted collectivization as a solution. (9)

Mao also expected increased agricultural production to bring a corresponding rise in investment funds available to the government from sources other than direct procurement through taxes and sales; increased productivity would enable peasants to purchase more light industrial consumer goods such as bicycles, sewing machines, textiles, etc. Prices for these commodities were set higher than the cost of production so that profits could be accumulated. These profits then became available to the state for investment, largely in the industrial sector.

China also had a serious social-political problem. After revolution and land reform, rural China was organized on a traditional basis of individual ownership of the means of production--i. e., land and tools. By 1953 some of the more troublesome features of the traditional system began to appear; the most disturbing of these was inequality. Extensive rural surveys taken by the Chinese in the early 1950s reveal a broad trend toward equality after land reform; data from a survey of 14,334 peasants in 21 provinces in 1954 are reported in Table 7.2 and another survey is reported in Table 7.3.

TABLE 7.2 Distribution of Classes in Rural China
after Land Reform and 1954

	<u>At Conclusion of Land Reform</u>	<u>At End of 1954</u>
Poor Farm Employees	57.1%	29.0%
Middle Peasants	35.8	62.2
Rich Peasants	3.6	2.1
Landlords	2.6	2.5

Source: "Simple Data for Survey on Income and Expenditure of Peasant Families in 1954," T'ung-chi Kung-tso 10, (1957). Cited by Su Hsing, op. cit., SCMM 409, p. 5.

TABLE 7.3 Distribution of Classes in Hunan, 1950-54

	<u>At Time of Land Reform</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>
Poor Peasants	56.73%	36.46%	28.08%	28.22%
Middle Peasants	30.25	50.45	58.96	58.07
Rich Peasants	3.18	3.46	3.63	3.70

Source: Hunan Rural Work Department, "Economic Condition of Poor Peasants in Ts'aot'ang Hsiang, Ch'angsha Hsien," *Jenmin Jih-pao*, (October 20, 1955). (Reprinted in T'ung Ta-lin, Basis for Great Development of Agricultural Cooperation, People's Publishing House.) Cited by Su Hsing, *op. cit.*, SCMM 498, p. 11.

Both of these surveys indicated that the percentage of poor peasants was declining and the percentage of middle peasants was increasing. It would seem, therefore, that the overall trend was toward equalization. These same surveys, however, also uncovered early indicators of a trend toward polarization. Some poor farmers were getting poorer, and were finding it necessary to borrow money and sell their land. There were also reports of a slight increase in the number of rich peasants; in Hunan the percentage of newly rich peasants rose from 3.18 at the time of land reform to 3.70 in 1954. Although these tendencies were slight and might not indicate a statistically significant trend, communist leaders feared that they indicated the beginning of inequality in the countryside only a couple of years after land reform.

This trend was especially ominous because structural forces were at work in the countryside that could hasten the division between rich and poor. Land reform had not completely equalized peasant holdings; the land of rich peasants had not been redistributed. Land expropriations had been limited to landlords, temples, and clans. The result was that there was not enough land available for distribution to the poor peasants and less laborers to bring their holdings up to the levels of the middle or rich peasants. (10) Peasant families still had different resource bases and different skills; classes still existed.

Some poor peasants were quickly forced into debt when bad weather ruined their crops, leaving them without money for the ceremonial needs of

marriages and funerals. In ten hsiang in Hupeh, Hunan, and Kiangsi, a third of all poor peasants were borrowing grain. In Kwangtung, almost half the poor peasants were in debt. (11) At the same time, a small group of money lenders was flourishing; usurers accounted for 20 households out of 2,486 in seven villages in Shansi. (12)

Another structural factor which reflected and further increased the differences was the hiring of labor. A survey of over 15,000 households in 22 provinces revealed that rich peasants were able to hire poor farm employees to work their farms. This was considered to be a continuation of an exploitative relationship that could lead to further impoverishment of the poor farmers (Table 7.4).

TABLE 7.4 Hiring of Labor, 1954

	Average Man-Days of Labor Hired in by <u>Each Household</u>	Average Man-Days of Labor Hired out <u>from Each Household</u>
Poor Farm Employees	7.0	25.7
Middle Peasants	17.2	18.7
Rich Peasants	78.6	11.7
Former Landlords	11.8	20.5

Source: "Simple Data for Survey on Income and Expenditure of Peasant Families in 1954," T'ung-chi Kung-tso 10, (1957). Cited by Su Hsing, "The Struggle Between Socialist and Capitalist Roads in China after Land Reform," Ching-chi yen-chiu 7 (July 1965). SCMM 498, p. 9.

Access to farm tools was a final factor contributing to polarization in the countryside. Because farm tools were not integrated into the new social structures of mutual assistance and cooperation, but were simply redistributed with land during land reform, the traditional unequal distribution of tools soon reemerged. A rural survey made in 1955, two years after land reform had been completed and MATs had been established, showed that dis-

tribution of farm tools was quite unequal (Table 7.5). Rich peasants had about twice the number of tools as poor ones; they also had more tools per acre. Moreover, there was some evidence that this inequality in tool owner-

TABLE 7.5 Ownership of Plows and Waterwheels, 1954

<u>Classification</u>	<u>Cultivated Land-Ha</u>	<u>Plows and Water Wheels</u>	<u>Tools-Ha</u>
Poor	.83	.48	.58
Middle	1.27	.87	.67
Rich	1.67	1.09	.65
Landlord	.81	.27	.33

Source: "Simple Data from Surveys on Income and Expenditures of Peasant Families in 1954," T'ung-chi Kung-tso 10, (1957). Cited by Su Hsing, "The Struggle Between Socialist and Capitalist Roads in China after Land Reform," Ching-chi Yen-chiu 7 (July 20, 1965), SCMM 495, p. 2.

ship would continue to grow. The 1954 survey in 23 provinces of over 15,000 peasant households showed that middle peasants had substantially higher earnings per household - ¥ 208.4 for middle, ¥ 135.5 for poor farm laborers. Of course, this permitted greater expenditures for farm equipment; middle peasant households spent twice as much for tools and livestock as did poor farm laborers (Table 7.1). If this were to continue, the middle peasants would become wealthier while the poor peasants stagnated.

Thus, while rural land ownership was more equalized in 1954 than before land reform, some Chinese leaders feared that there were structural factors in the system of land ownership which would result in a growing inequality. Mao Tse-tung shared this concern and expressed it clearly in a 1955 report, "On the Question of Agricultural Cooperation."

What exists in the countryside today is capitalist ownership by the rich peasants and a vast sea of private ownership by the individual peasants. As is clear to everyone, the spontaneous forces of capitalism have been growing in the countryside in recent years, with new rich peasants springing up everywhere and many well-to-do middle peasants striving to become rich peasants. On the other hand, many poor peasants are still living in poverty for lack of sufficient means of production, with some in debt and others selling or renting out their land. If this tendency goes unchecked, the polarization in the countryside will inevitably be aggravated day by day. (13) (emphasis added)

This situation posed a sharp dilemma for the Communist Party; it could mean a loss of support for the Party in the countryside.

Those peasants who lose their land and those who remain in poverty will complain that we are doing nothing to save them from ruin or to help them overcome their difficulties. Nor will the well-to-do middle peasants who are heading in the capitalist direction be pleased with us, for we shall never be able to satisfy their demands unless we intend to take the capitalist road. Can the worker-peasant alliance continue to stand firm in these circumstances? Obviously not. (14)

RESULTS OF COLLECTIVIZATION

What impact did these major institutional reforms have? In some cases, the results were what Mao had predicted; in others, he was wrong.

Impact on Production

Mao had hoped that collectivization would have an immediate, beneficial impact on agricultural production. However, the impact has been far from clear. Figure 7.3 shows the long-term trend of grain production in China and, for comparison, in India. For the period between 1951 and 1957, there are alternative estimates for production and growth rates. If one accepts the Chinese figures, as does the United States Department of Agriculture, then growth is fairly impressive. If, however, one accepts Kang Chao's estimates that grain production was not as low as it is claimed in 1949-50, then the growth rate is less. In either case, it is remarkable how little impact the institutional changes of the early and mid-1950s have had on long-

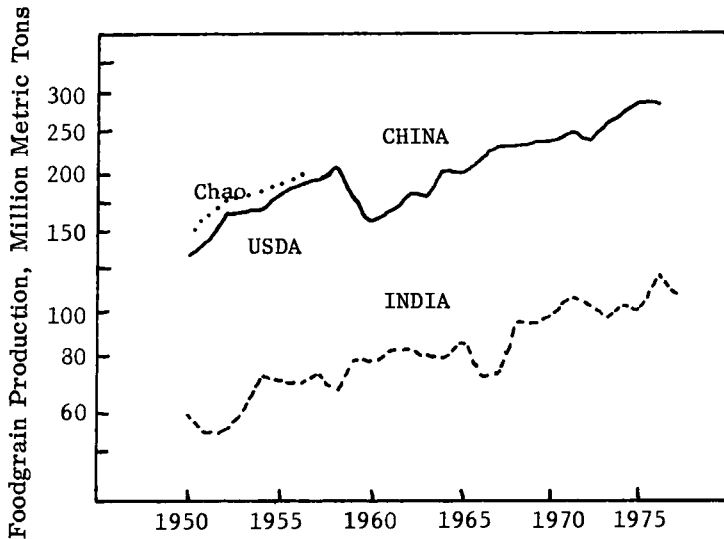


FIGURE 7.3 Long-term Growth of Foodgrains, China and India

Sources: China, 1949-67: The line plotted is the sum of estimates for foodgrains and soybeans done by the U. S. Department of Agriculture in the Agricultural Situation in the People's Republic of China and Other Communist Asian Countries, 1975-76. These estimates are based, wherever possible, on official Chinese sources.

China, 1949-58: An alternative estimate is offered by Kang Chao. The line represents the sum of his estimates of foodgrains and soybeans. The estimates are higher than the official Chinese estimates because Chao believes the Chinese underestimated the area of land sown to crops. Kang Chao, Agricultural Production in Communist China, 1949-65 (Madison: University of Wisconsin Press, 1970), pp. 227, 262-263.

China, 1970-75: Neville Maxwell, "Recent Chinese Grain Figures," China Quarterly 68 (December 1976), p. 817. Maxwell reports that Chinese statistics since the mid-1960s are for cereals and soybeans together.

India: Estimates of Area and Production of Principal Crops in India, 1974-75 (New Delhi: Directorate of Economics and Statistics, 1976).

1976: New York Times, (30 January 1977), p. IES 19.

The definitions of foodgrains for China and India in this chart are not comparable, but the differences in definitions should not affect the growth rates much at all.

term production trends. The sharp decline between 1959 and 1963 is related to institutional factors which will be examined later. The long-term growth rate in China's grain production has been about 2.5 percent; this is virtually identical with India's, and a bit more than the population growth rate, thus assuring improved diets in China. The growth rate of vegetables, fruits, pork, fish, sugar, and cotton has been somewhat higher.

More data suggesting a weak correlation between collectivization and production in the short-run are reported in Figure 7.4. When changes in food grain production per capita are compared with the rate of adoption of collective agriculture in 1956, there appears to be no striking relationship.

Another set of interesting data are reports of grain yields in five localities (Figure 7.5); they reveal no simplistic correlation with institutional reform. Data for 1956, the year of collectivization, seem to have been deleted in some cases, but one can hardly build a theory on that. Fluctuations induced by weather are evident; there was a drought in 1972. However, the most striking revelation of the data is the sharp increase in yields after the early to mid-1960s, when a wide range of technical innovations became available.

Figure 7.3 shows a severe agricultural depression in China between 1959 and 1961. This was undoubtedly related to the People's Communes that were introduced the previous year, but it reflects something far more complicated than simply the presumed inefficiencies of collective agriculture. There were problems of inappropriate labor organization, erroneous instructions on planting depth and spacing, excessive zeal in constructing irrigation systems which led to soil salinification, poor price incentives, reckless procurement efforts, and political leadership that engaged in flights of fancy. Somehow the Chinese leadership forgot its leadership process of local experimentation before launching energetic campaigns. Furthermore, all these problems were compounded by bad weather.

During the Cultural Revolution of 1966-67, grain production stagnated and yields in some localities dropped. This probably reflects urban disruptions that may have interfered with timely deliveries of fertilizers, electric power, and other supplies rather than changes in rural organization. The fact that China collectivized agriculture without either an immediate collapse or long-term stagnation in production seems astounding when contrasted with the Soviet Union's experience. When carrying out collectivization, the Chinese were very careful to avoid the mistakes that the Russians had made. Several factors made the smooth, rapid collectivization of China's countryside possible.

First, the Chinese Communist Party had a firm rural organization by 1955. Table 7.6 shows how much stronger the Chinese Communist Party was in the rural areas than was the Communist Party of the Soviet Union on

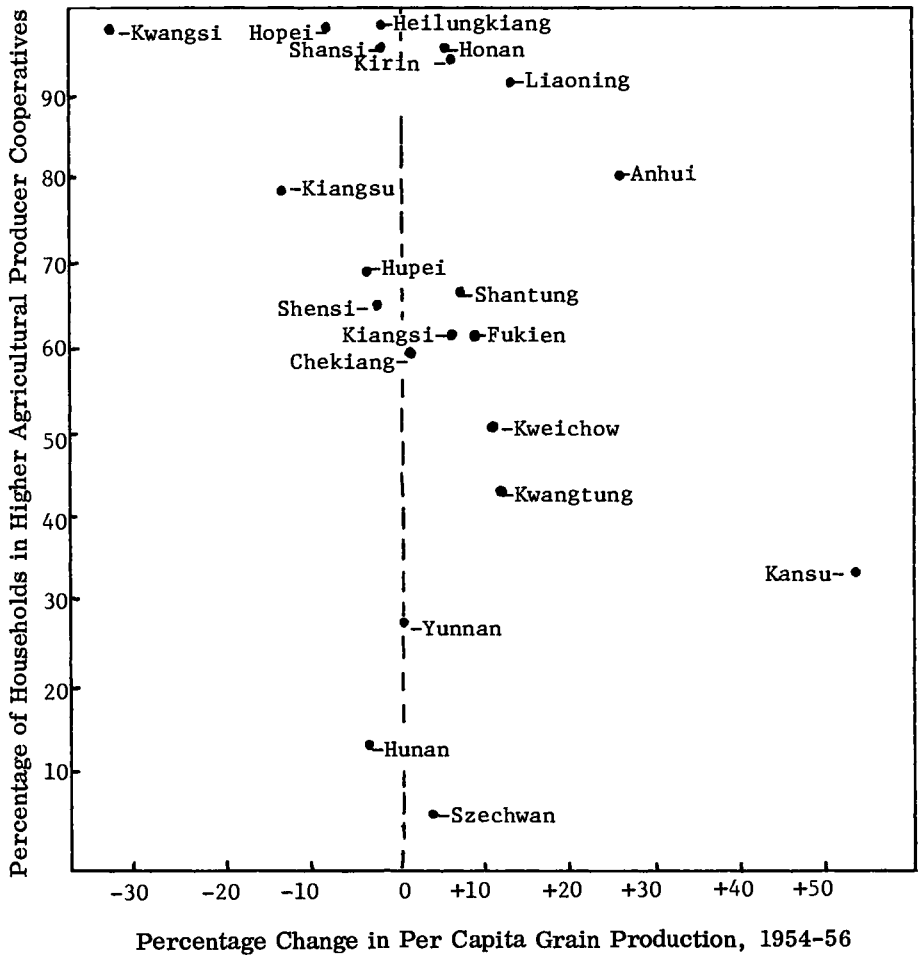


FIGURE 7.4 Relation between Agricultural Cooperation and Grain Production

Sources: Percent of Households in HAPC, 1956: Thomas Bernstein, *Leadership and Mobilization in the Collectivization of Agriculture in China and Russia: A Comparison* (Columbia University dissertation, 1970), p. 30.

Grain Production in Each Province: Computed from Kang Chao, *Agricultural Production in Communist China, 1949-65* (Madison: University of Wisconsin, 1970), pp. 304-305. These figures are Chao's estimate, not official.

Population in each Province: Computed from Robert Michael Field, "A Note on the Population of Communist China," *China Quarterly* 38 (April-June 1969), p. 162.

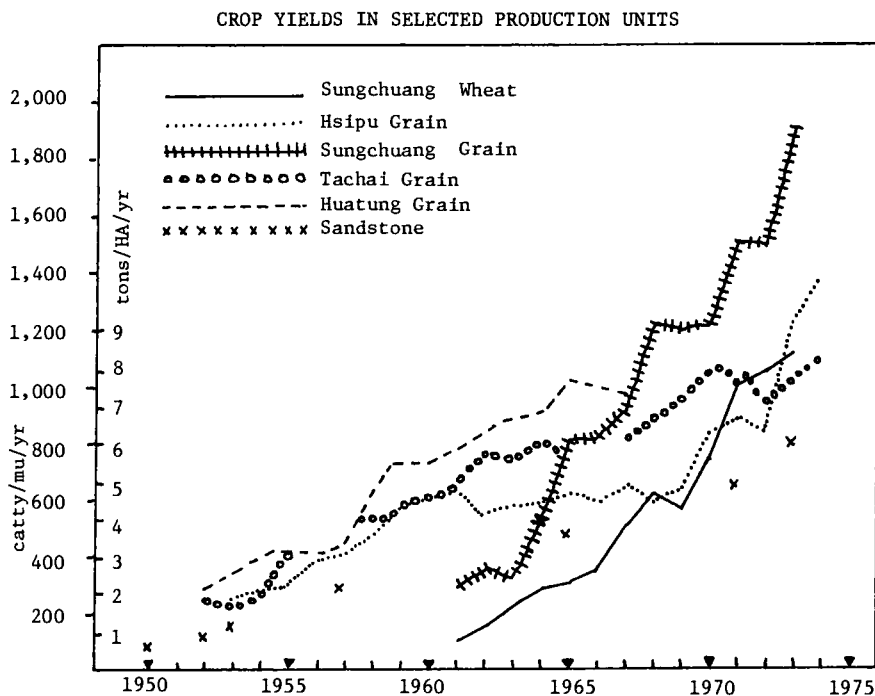


FIGURE 7.5 Crop Yields in Selected Production Units

Sources: Sungchuang: Chu Li and Tien Chieh-Yun, Inside a People's Commune (Peking: Foreign Languages Press, 1974), p. 143.

Hsipu: "Ch'iung-pang Tzu" Ching-sheng Fang-Kuang Mang (The Spirit of a Pauper's Model Illuminates the Way) (Peking: People's Publishers, 1975), p. 168.

Tachai: Paul Steidlmeier, The Dazhai Model in Chinese Agriculture, 1964-74 (Stanford: Food Research Institute Dissertation, 1975), Table II-7. "How Tachai Improved its Soil," China Reconstructs, (June 1976), p. 19.

Huatung: Ward Morehouse, "Notes on Hua-tung Commune," China Quarterly 67 (September 1976), p. 586.

Sandstone: Tang Feng-chang, Sandstone Hollow (Peking: Foreign Languages Press, 1975), pp. 3, 5, 13, 28, and 61.

TABLE 7.6 Rural Party Organization on the Eve of Collectivization, China and the Soviet Union

	USSR	China	
	1929	1955	1956
Percent of Party Members in Rural Areas	21% ^a	43% ^b	70% ^b
Rural Party Members (thousands)	310 ^a	4,000 ^b	7,517 ^b
Total Rural Population (million)	114 ^c	532 ^d	539 ^d
Rural Party Members per 1,000 Rural Inhabitants	2.7	7.5	13.8
Percent of Villages with Party Organization	33-39% of 72,163 villages ^e	77% of 220,000 hsiang ^b	90% of 210,000 hsiang ^e

Sources: a. Robert Miller, One Hundred Thousand Tractors (Cambridge: Harvard University Press, 1970), p. 195.

b. Franz Schurmann, Ideology and Organization in Communist China (Berkeley: University of California Press, 1968), pp. 129-32.

c. Frank Lorimer, The Population of the Soviet Union (Geneva: League of Nations, 1946), p. 110. Cited in Naum Jasny, The Socialized Agriculture of the USSR (Stanford: Stanford U. Press, 1949), p. 709.

d. Peter Schran, The Development of Chinese Agriculture, 1950-1959 (Urbana: University of Illinois, 1969), p. 47.

e. Thomas Bernstein, "Leadership and Mass Mobilisation in the Soviet and Chinese Collectivisation Campaigns of 1929-30 and 1955-56: A Comparison," China Quarterly No. 31 (July-September 1967), p. 11.

the eves of their respective collectivization drives. In China, the ratio of Party members to rural inhabitants was roughly three times what it was in the Soviet Union; in China, the Party was established in almost 80 percent of the rural townships (hsiang), while in the Soviet Union the figure was about 40 percent.

Second, the Party in China exhibited much more effective leadership. Its cadres were not only more numerous but more reliable because they were familiar with rural conditions. The Chinese were careful to develop local, indigenous leadership and to mobilize the power classes of peasants who could neutralize the middle and rich peasants. (15) At the same time, the Chinese had carefully planned a campaign to appeal to the more affluent peasants; during the five years prior to collectivization, they had deliberately manipulated agricultural taxes, credit, procurement, and marketing policies to create a system of economic incentives which made participation in collective activities financially desirable to them. (16) By 1955, about 50 percent of China's rural population had been in mutual aid teams, and about 14 percent had been in lower-stage cooperatives.

Another factor simplifying the establishment of collective agriculture in China was the enduring tradition of collective activities. At the village level, sharing of tools and exchange of labor long had been a custom. (17) At the multi-village level, in many regions there was long-standing experience in the collective management of water. (18) The market-town, comprising perhaps 20 villages and a population of about 7,000 or 8,000 people, was a well-established social community with substantial social intercourse through kinship and economic networks and with mechanisms for sharing tasks and benefits. (19) Chinese peasants had experienced working with other people; the notions of reciprocity had been established. Therefore, the social, psychological, and economic foundation on which agricultural co-operatives could be built had already been constructed. Perhaps the Soviet Union had a similar foundation for collective agriculture in the Mir, but it was not used in the same way.

Finally, China was able to learn from Russia's mistakes. In discussing plans for collectivization in September, 1955, Mao Tse-tung warned:

It is necessary to keep in mind guarding against the "left." Guarding against the "left" is also Marxism. Marxism is not guarding against the right alone . . . We don't want dead cattle . . . How can we achieve this criterion? (1) Implement the policy of voluntariness and mutual benefit; (2) Overall planning; and (3) Flexible guidance. The leadership must grasp well these three items. Some people caution us that the Soviet Union committed "leftist" mistakes. We must not forget the experience of the Soviet Union. (20)

From these data it should be easy to discard two ideologically derived notions: collective agriculture immediately increases production because of greater labor enthusiasm and more effective labor organization; and collective agriculture automatically and immediately leads to disaster.

Impact on Procurement

Mao had argued that collectivization would simplify procurement. From an administrative point of view this may be true, but, in fact, collectivization did not result in higher levels of procurement. Even before collectivization, in 1954, the government was perfectly capable of extracting grain from the countryside - indeed, capable of extracting too much and contributing to peasant unrest, a mistake that Mao criticized. (21) In the extraction of surpluses, there was no weakness with the system of individual ownership. In fact, it is interesting to note that, after the formation of cooperatives and the subsequent rise in production, the extraction rate declined in both relative and absolute quantities. (22) High procurement rates contributed to the crisis of 1959-61; after 1964 procurement rates were reduced and kept fairly low for several years, according to detailed data on one brigade which are available. (23)

Impact on Equity

The sharpest immediate impact of collectivization was on the distribution of resources in the community. Previously, the main assets were land and farming skill. With collective agriculture, everyone in a village has equal access to the major economic resources of the community. Of course, there is not complete equality; people with physical brawn or good political character may receive greater rewards. Moreover, if a family has many non-working members, its per capita income will be less than that of a family with many workers. Other sources of inequality include differing access to political power, to education, and to non-farm employment. There are also serious regional differences.

Despite these different sources of inequality, collectivization has kept China one of the most egalitarian societies in Asia (Table 7.7). Moreover, to the extent that profitable subsidiary economic activities - e.g., hogs and fruit trees - are put in the collective sector, China is becoming more egalitarian.

ADVANTAGES AND DISADVANTAGES OF COLLECTIVIZATION

Both collective and private agriculture have long-term advantages and disadvantages. Agriculture is practiced under widely varying conditions

TABLE 7.7 Indicators of Rural Income Distribution

		<u>Ratio of Top 20% to Bottom 20%</u>
China		
Within Villages		
Three Villages, 1955-56 ^a		2.3-3.5
One Village, 1962 ^{a, b}		2.8-5.2
Two Villages, 1974 ^a		2.1
Nationwide Sample, 1952 ^c		3.1
For 36 Communes, 1960s ^b		4.3
For 24 Communes, 1970s ^d		3.6
Egypt	Personal, 1966-67	2.3
Sri Lanka	Household, 1969-70	4.8
Korea (South)	Household, 1971	4.7
Taiwan Province	Household, 1964	5.1
Japan	Household, 1963	5.2
Punjab State	Household, 1969-70 (excluding landless)	5.4
Bangladesh	Household, 1963-64	5.4
Yugoslavia	Household, 1968	5.6
Pakistan	Household, 1968	6.3
India	Household, 1964-65, 1967-68	8.3
Indonesia	Household consumption, 1964-65	5.6
Philippines	Household, 1971	12.3
Malaysia	Household, 1970	12.9
Thailand	Household, 1968-69, 1970	14.0
Turkey	Household, 1963, 1968	16.2

Sources: China--(a) Marc Blecher, "Income Distribution in Small Rural Chinese Communities," China Quarterly 68 (December 1976): pp. 797-816; (b) A. R. Khan, The Distribution of Income in Rural China (Geneva: International Labor Office, World Employment Program Research

(Table 7.7 cont.)

Working Papers, October, 1976), p. 29; (c) Charles Roll, Incentives and Motivations in China: The "Reality" of Rural Inequality (Santa Monica: Rand, 1976), p. 26; (d) G. B. Ng, Rural Inequalities in China (Geneva: International Labor Office, World Employment Program Research Working Papers, October 1976), p. 9.

Other Countries--Norman Uphoff and Milton Esman, Local Organization for Rural Development in Asia (Ithaca: Cornell Center for International Studies, 1974), p. 147.

Notes: Data for Taiwan and Japan are national, not rural, surveys and thus include urban families. For India, some recent studies suggest that the ratio of the top and bottom quintile is not much different from that in China - 4.1 to 5.3. Uma Datta Roy Choudhury, "Changes in Distribution of Household Income, Consumption and Wealth in Rural Areas," Economic and Political Weekly (October 1, 1977): pp. 1709-12.

that require intimate knowledge of local soil types, climatic patterns, and water resources. Moreover, sudden changes in weather often require a rapid response - to irrigate, to harvest, to plow under a crop and start again. It is argued that only the owner-operator with an intimate knowledge of farm conditions and an ability to make rapid decisions can offer efficient management. In contrast, collective ownership implies either bureaucratic management, which cannot act quickly and cannot be adequately decentralized to make it responsive to local conditions, or committee management, which also cannot make rapid decisions.

There is no doubt that China has encountered management problems in agriculture. When agriculture was first collectivized, no one knew how to manage it on a large scale. No one knew how to assign labor on the scale of the whole village, nor were there adequate personnel to do the accounting. Several years passed before rural China acquired the management skills needed to make the collective system work efficiently. (24) Years of experimenting with different work-point systems were needed before one was developed that was fair and that incorporated suitable incentives for labor.

Another potential problem with collective agriculture is the problem of entrepreneurship. Since no individual will make a lot of money by investing in or adopting a new technique, what alternative incentive system can interest people in taking risks and making changes? There are, in fact, many reasons other than financial gain for people to desire change; these include patriotism, ideology, social pressure, and the desire to help humankind. The transition from one pattern of incentives and entrepreneurship to another is not simple, however.

With years of experience these managerial problems are being resolved. Many production teams or brigades have scarcely 100 hectares, the size of a fairly small family farm in the United States. The basic production units in China have been kept small to simplify management and assure effective incentives. Another advantage claimed for private agriculture is that the inequalitarian distribution of assets and profits inherent in private ownership is necessary to permit an accumulation of resources for investment in new technology. While some wealthy farmers invest in technology to increase agricultural production and reduce costs, others spend farm profits on consumer goods and further land purchases, or in urban industry and commerce. In contrast, the profits of collective agriculture, although they are subject to social decisions, may be more easily directed to farm investment.

Collective agriculture in China has numerous advantages. Chinese rural institutions have been able to mobilize labor for vast construction projects that have harnessed rivers to control floods and droughts and improve farmland. There are several levels of rural institutions - team, brigade, commune, county, and river-basin authority. Therefore, interests can be identified, expressed, and articulated for projects of almost any scale; in addition, there is the capacity to construct projects on any scale. Virtually no project is too small to be worthwhile to some institution, or too large to mobilize funds and labor.

The collective ownership system provides a strong incentive for labor-intensive construction projects. The collective units have a fundamental obligation to provide work, food and income for all members; a team leader cannot dismiss the members of the team when labor begins to have a declining margin of profit. As long as increments in labor have positive productivity, no matter how small, it makes sense to use that labor. Thus, under the collective system of ownership it is sensible to utilize more labor than under private ownership, where workers could be dismissed. Of course, this is true only in a system in which people do not have the freedom to migrate in search of higher wages.

Moreover, the peasants have a strong incentive for participating in improvement efforts. The egalitarian features that some people consider detrimental to economic growth provide everyone with some of the benefits of increased productivity. If a construction project is sound, it will improve everyone's income; no one feels he is working on a project that will benefit only a few. This feeling of shared interests is reinforced when leaders of the managing organizations discuss plans for projects extensively with the peasants, and then participate in physical labor with the others.

Exactly how important it is to mobilize labor depends on the physical environment. Labor-intensive projects have built dikes to control the rivers in North China, which are silt-laden and prone to filling in their beds and then flooding; they have also been used to dig dozens of huge drainage canals

to facilitate removal of excess rain water from the level North China Plain. Labor mobilization has also proven useful in building terraces to increase the scant cultivated area, and in leveling the land so that irrigation systems and tractors can operate more effectively. In countries with ample land and an optimum rainfall, these types of construction projects might not be necessary, but in China they have been the sine qua non for controlling natural disaster and stabilizing and raising yields.

A second advantage of the organization system in China is that certain sociopolitical impediments to efficient economic allocation of resources are removed. Studies in the Philippines have shown that good irrigation is crucial to the adoption of high-yielding rice production techniques. In rainfed regions rice yields are only about 1.8 tons per hectare, while in effectively-irrigated localities yields are 2.8 tons per hectare. (25) In many localities the constraint for expansion of irrigated area is not lack of water; water at the head of an irrigation system is wasted so that it is insufficient at the lower reaches. Very often the people who own land at the head of the irrigation system have social and political power; they oppose changes in irrigation practices which would result in more sharing of water - hence, income and power - with people lower down in the system. Analogous circumstances frequently explain sub-optimal distribution of other inputs, such as fertilizer and credit. In contrast, the collective system in China offers incentives for maximizing total production.

Another advantage of the collective system is its ability to enforce a fairly high degree of savings and a commensurate high level of investment. The levels of savings and investment are discussed at public meetings at each level; the final decision is a collective one which is influenced by party policy. The collective ownership system permits the use of powerful collective economic incentives, including a regressive tax structure; the tax stays at a fixed amount, hence declines as a percentage when income rises. This occurs without aggravating income differences within a village, as happens when a regressive tax system is used in a private economy.

Several factors make collective agriculture conducive to rapid technical change. First, extensive field testing of new techniques is easily arranged. Teams and brigades set aside small pieces of land for experimentation. If the experiment is successful, the new technique can be adopted; if it fails, the consequences are not catastrophic. No one is entirely dependent on the outcome of the experiment for food. In this manner both local managers and agricultural scientists have been able to compile extensive data concerning the performances of different techniques. The risks of innovation are spread evenly in a village. Transfer of technology can be very rapid. All agricultural techniques are public information: there are no secrets. The government often organizes meetings to demonstrate the successes of a region and to exchange information about experiences. Indeed, in the past

technical transfer sometimes was too rapid; there was inadequate local testing, and serious failures resulted. Proper local testing is correcting this fault.

The collective system enlarges the size of plots and reduces parcelization, thus simplifying mechanization of cultivation and saving time. Collective ownership reduces the expenditures needed to prevent thievery of both crops and water; it also simplifies the staggering of peak labor times by rationalizing planting time.

Because almost everyone benefits from agricultural development, there is no one who needs to oppose development in order to protect his livelihood or privileges. There are no tenants who fear they will lose their lands if mechanization comes, or who will have to turn over the bulk of increments as rent. There are no small farmers who get pushed out of the rice market when new seeds increase productivity and push prices down. Because everyone feels his livelihood is secure, superstitions may be dropped and scientific values adopted more quickly. (26) This advantage is especially important in regard to mechanization. Under collective agriculture, there is no distinction between private and social costs and benefits; thus agricultural mechanization does not proceed in a manner in which the social costs of unemployment and migration outweigh private benefit. Mechanization in China benefits everyone in the rural economy through reduced labor intensity and increased income; and some have job diversification. There is no rural unemployment; nor is there urban migration, and the resulting demand for urban services which would burden the economy while the financially-successful farmers profit. (Serious price distortions could, of course, mean that the urban or rural sector as a whole is subsidizing the other.)

An important function of rural local institutions, particularly the communes, is the integration of agro-technical services with the needs of agricultural production. This is especially true with regard to mechanization, extension, marketing, health, and education. An important holdover from China's culture has been the desirability of getting a job in a government bureaucracy in order to escape from the unpleasantness and insecurity of the agricultural economy. There has been a tendency among young people to join service bureaucracies and ignore agricultural production in an effort to keep their hands clean. By putting these services under the supervision of the commune, everyone is forced to pay more attention to the needs of agricultural production and to the desires of the rural people.

However, many of these services need good technical guidance. When they are decentralized and put under commune management, the technical standards of the services can easily deteriorate. It appears that after the Cultural Revolution the Chinese were aware of this problem and have taken steps to assure continued high standards of technical inputs from central technicians, who remain under the administrative direction of the communes.

The commune also organizes certain welfare services for its members, notably in the fields of education and health. In both cases there are financial subsidies from higher levels of government and there appear to be guidelines for the performance of services. Commune management of these services probably is most important in shaping their style of delivery; each commune is concerned with the demeanor of its teachers and doctors. Do they show respect for farmers? Do they make house calls? Are principals willing to talk with parents about the progress and problems of their children? The commune strongly encourages the service personnel to pay attention to these questions of style so that commune members will not be degraded and humiliated when they receive services.

There is no need to argue that these advantages are unique to the collective system in China. There are a variety of ways in which these features can emerge from a system of private ownership. Generally, however, such a system has important distributional effects. The wealthy, progressive farmer has a high enough income to invest his savings, to experiment with new techniques, and to get information rapidly about new techniques; generally, he will get most of the benefits of agricultural development. The important fact about China for this analysis is that incentives, savings, risk-taking, and the prompt dispersal of technical information are not, by any means, eliminated under collective agriculture.

It must be acknowledged that establishing and maintaining collective agriculture has some human and political costs. Land reform was a necessary first step in eliminating the old rural elite as a social class. Had this class not been eliminated, it could have dominated the collectives and changed their character. Land reform in China was accompanied by some violence. Perhaps there was one death for every five to ten landlord families - representing only .1 of one percent of the rural population. Still, this means that almost 500,000 people were lost. This number may be fewer than the people who died in natural disasters every few years in China, or fewer than the people beaten and killed for failure to pay rent and taxes; but even so, it was a regrettable aspect of collectivization.

Maintaining collective agriculture has also been controversial. Constant, firm leadership by the Communist Party has been necessary to prevent the emergence of a new class, through "spontaneous capitalism" or bureaucratic corruption, that would seize the benefits of agricultural development.

SOURCES OF LONG-TERM GROWTH

While collective agriculture has been very important in shaping patterns of distribution and agricultural productivity in China, a wide range of other

policies have been relevant to agricultural growth. After the agricultural collapse of 1960-61, China invested tremendous resources in agricultural modernization. The Chinese do not think of modern agriculture in narrow terms such as new seeds, fertilizer, or tractors. Rather they see the modernization of agriculture as involving a comprehensive set of changes in eight areas: soil conservation, water conservation, fertilizer usage, seed improvement, crop protection, distance planting, field management, and tool improvement and mechanization.

During the early 1960s the most rapid regions of growth in agriculture were the fertile river valleys and lake basins of south and central China. Rural electrification and low-lift pumps in these areas permitted the precise control of water that was essential for the spread of high-yielding varieties and for more multiple cropping.

In the early 1970s the massive river control projects of dry North China were complemented by the installation of mechanical tubewells, thereby permitting an intensification of cultivation over more than seven million hectares by 1974. (27) By 1975 China had a total capacity of power pumps almost double that of India. (28)

The Chinese government is convinced that about 33 million hectares, or approximately 27 percent of its cultivated land, will have an assured harvest despite drought or flood. (29) About 24 million hectares of this land are in roughly a dozen regions that historically have been centers of China's agricultural production (Table 7.8). Another 9 to 10 million hectares have been improved in small projects undertaken by most communes, brigades, and teams. A goal of about 70 million hectares of land producing high and stable yields, irrespective of drought and waterlogging, by 1980 has been announced. This represents one mou - one-fifteenth of a hectare - per rural person. (30)

Part of China's success stems from a decision made in the late 1950s to expand rapidly the chemical fertilizer industry. Since the early 1960s, production has been growing at a rate of about 20 percent annually. In 1963 Chinese engineers designed a factory that could use coal and water to produce ammonium bicarbonate. Although the operating costs of this process were fairly high and the product was not the most concentrated fertilizer, capital costs were low and start-up time short. A program was instituted to install one such factory in most of China's 2200 counties.

In 1972, however, China changed its fertilizer policy somewhat. Because expansion of the petroleum and natural gas industry made new feedstocks available, because a more concentrated fertilizer was desired to reduce transportation costs, and because new industrial processes had been developed in the West that could greatly reduce the cost of making ammonia, China embarked on a remarkable program that involved the purchase of 28 of the largest, most modern ammonia and urea factories in the world. Americans, Japanese, Dutch, Danish, and French supplied the factories at a cost

of at least \$442,000,000. (31) By the mid-1970s China possessed the world's third largest fertilizer industry, surpassed only by those of the U.S. and the USSR. China has been, at the same time, one of the world's largest importers of chemical fertilizers.

TABLE 7.8 Regions of Highly Productive Agriculture, with
Mechanized or Secure Irrigation, 1971

	<u>Million hectares</u>
North China Plain	10.3
Upper Yellow River	0.8
Northeast	0.2
Middle and Lower Yangtze Valley	10.0
Pearl River Delta	0.5
Hunan, Tungting Lake Region	0.7
Fukien	0.6
Other, South China (Hainan, Kwangsi)	0.5
Total	23.6

Source: Ben Stavis, "A Preliminary Model for Grain Production in China, 1974," China Quarterly 65 (March 1976), p. 87.

Despite the magnitude of China's chemical fertilizer production and imports, the amounts available per hectare are still modest because of China's immense crop area. To obtain adequate crop nutrients and to maintain soil quality, China continues to utilize huge amounts of organic materials for compost. Pig manure and nightsoil, combined with vegetable leaves, straw, mud, and other materials, are carefully composted and provide about half of the crop nutrients.

Production of farm machinery, such as tractors, pumps, and stationary threshers, has grown rapidly also, particularly after 1968. Machinery is needed to save time and enable rapid harvesting, cultivating, and planting of a field in multiple cropping systems.

It might be noted that before China could develop its chemical and farm-machinery industries, a 10 to 15 year period was needed to create a heavy industry base. Steel and machine tools were needed to make machines; a petroleum industry was needed to provide fuel; a transportation infrastructure was required. In short, a policy to support agriculture could not be implemented until the economy had been developed.

State support for agriculture is also evident in the areas of science, technology, and manpower training. By 1963 approximately 100,000 people had been trained at the college level in some branch of agriculture. (32) They were able to staff a large research and extension system, as well as government and financial offices. China had developed a large and effective agricultural science research program.

During the late 1950s and early 1960s considerable success was achieved in rice-breeding work. Dwarf varieties were developed that could utilize large amounts of fertilizer without falling over, or "lodging." The dwarfing gene came from a variety grown in Kwangsi province. The distinctive characteristics of the Chinese dwarf varieties are that they mature 10 to 15 days earlier than other varieties and they are tolerant to the cold weather that arrives at the end of a long season. These innovations permit not only high yields but also save time for multiple cropping. Not until the early 1970s were Chinese breeders successful in developing short, high-yielding, early-maturing varieties of wheat. Chinese breeders also have been doing considerable work with cotton, maize, and sorghum; less work seems to have been done on vegetables. (33) Although Chinese plant breeders have access to the improved varieties of seeds through international research centers in friendly countries such as Pakistan, the Chinese breeding program has been essentially self-reliant. The Chinese found that the rice varieties from the International Rice Research Institute required too much time for their compressed growing seasons.

Since 1970 Chinese plant breeders have made a major break-through in developing and applying tissue culture techniques for practical purposes. Anther or pollen culture has been developed for ten species, including wheat and rice. (34) Tissue culture techniques had been developed in many countries for tobacco, and Japanese scientists first published descriptions of a similar technique for rice in 1968. China is one of the first countries - perhaps, the first - in which anther culture of wheat has been achieved. Tissue culture offers a way of isolating in a single step all the potential genetic combinations which can be realized from a cross of two varieties. Unlike normal crossing, in which the genetic makeup is unstable and subject to

change in subsequent generations, the genetic combinations resulting from another culture are stable and can be multiplied and popularized rapidly.

Another distinctive dimension of agricultural research in China has been extensive work on microbiological processes in the hope that reliance on chemicals can be reduced. (35) Leaves and stalks are ground up and partially digested by enzymes so that they can be fed to pigs. Microbiological fertilizers are being developed. Hormones that regulate plant growth are used to speed up the maturation of crops. Micro-organisms are used to attack insects and to cure plant diseases. Manures and refuse are fermented anaerobically to generate methane. Chinese "Gobar" gas plants are smaller and far simpler than in India. They lack an expansion chamber and must be managed carefully to prevent excessive pressure build-up. This permits a very inexpensive design suitable for use by a small household. These pits are widespread in some regions. To date, these types of research have had only limited practical application, and China remains dependent on chemicals for fertilizer and plant protection. However, it is likely that these biological processes will be used more extensively in the future.

Chinese financial policies have also assisted agricultural development. While the agricultural tax has remained fixed, the procurement price of food grains has gone up and the price of industrial commodities has dropped; thus the purchasing power of agriculture produce has almost doubled over the years. These tax and price policies mean that, in the long run, the benefits of agricultural modernization remain in the countryside. Between the 1950s and the late 1960s, the average rural income came close to being doubled. (36) Obviously, these financial policies constitute a powerful incentive for China's peasants to work hard and invest more in agriculture. They, their children, and their grandchildren will reap the benefits. Controls on internal migration prevent migration to a city as a viable alternative for enriching one's self or one's descendants.

Widespread rural primary and secondary education spread literacy and disseminate ideas about agriculture. Effective public health programs - especially the eradication of enervating snail fever - help to enrich the peasants' lives and to maintain the quality of their labor.

In short, there are a wide number of policies which complement each other in China's agricultural system. It is futile to try to extract a single policy, such as collectivization, as the critical policy.

EFFICIENCY OF AGRICULTURE

It seems impossible to evaluate the efficiency of alternative institutions for productivity. However, it is simple enough to indicate the national crop

yields in China (Table 7.9). Nevertheless, it is very difficult to know whether the particular set of inputs China is using - involving much labor for management and preparation of compost - is producing "efficiently" under the particular environmental constraints of China.

Compared to India, China grows 30 to 40 percent more food per capita for 50 percent more people on 14 percent less land; in other words, China gets about 250 percent more food out of each unit of land per year. However, China's inputs of fertilizer, machinery, and labor are approximately double those of India. (37) Which is more efficient when the difference is in climatic systems are taken into account? Perhaps agronomists and geographers will develop the analytic tools that could answer this question.

POLITICS OF COLLECTIVIZED AGRICULTURE

Fascination with the impact of collectivization on productivity has drawn attention from other important political issues which should be considered carefully by political scientists. One set of issues involves urban-rural balances. Collectivization wipes out a rural elite that often has extensive political connections with a national political system. Sometimes these connections are shaped by kinship. In other cases, where elections are important, the ability of the rural elite to gather votes from their clients adds to their political clout. Such a "farm lobby" can put substantial pressure on a government for a policy that helps at least some portions of the rural economy. For example, tractorization may be subsidized. While the rural elite may benefit, the tenant and the landless may or may not be helped, depending on the peculiarities of the agro-environment and social structure.

Collective agriculture eliminates these demands on the central political system. Does it replace them with other demands? Does collective agriculture aggregate peasant political demands and force the government to take the rural sector more seriously? Or does collective agriculture provide a way of controlling and exploiting the rural sector for the benefit of the urban centers? While the latter case may be more common, China may belong in the former category. If so, is it because of the peculiar forms of the rural collective institutions, or because of the structure and values of the central political institution? Probably the latter is more important. However, China's rural collective institutions - characterized by equality, reduced economic risk, and ideological mobilization - have changed rural culture and made Chinese peasants more confident and demanding of the central authorities.

Another set of issues for political analysis involves the impact of collective agriculture on local politics. Do the managers of collective farms

TABLE 7.9 Agricultural Yields in China
(Tons per Hectare)

	<u>1974^a</u>		<u>1974^b</u>
Rice			
Single Crop			
High Yield	4.2		
Regular	3.2		
Double Crop:			
First Crop:			
High Yield	4.2	} 3	3.5
Improved	3.6		
Regular	2.6		
Second Crop:			
Improved	3.5		
Regular	2.3		
Wheat			
In Multiple Cropping	1.7		
In Other Regions		} 1.6	1.4
High Yield	3.5		
Mechanized, N. E.	1		
Regular	.8		
Improved, Partly Mechanized	1.7		
Coarse Grains			
Regular	1.1	} 1.4	1.4
Improved	2		
High, stable	3		
Potatoes		2.1	2.1

Sources: a. Ben Stavis, "A Preliminary Model for Grain Production in China, 1974," China Quarterly 65 (January 1976): p. 91.

b. People's Republic of China Agricultural Situation (Washington, D. C.: USDA Foreign Agricultural Economic Report 137, 1977), p. 32.

TABLE 7.10 Agricultural Inputs in China, 1975

Irrigated Area (million hectares) ^a	45.3
Chemical Fertilizers ^b (millions of tons) of Crop Nutrients, 1974-75	
Nitrogen - Produced	3.09
Imported	0.84
Phosphates - Produced	1.30
Imported	0.03
Potash - Produced	0.30
Imported	0.25
Total Consumption	5.80
Labor Inputs (man-days/hectare)	
Irrigated Wheat ^c	225-450
Rice ^d	225-450
Preparation of Compost ^c	75-375
Tractors - Regular Size ^e	About 500,000 15 HP units i. e., about 250,000 tractors (1975)
Garden ^e	about 130,000 15 HP units i. e., about 520,000 units (1975)
Tubewells/Pumpsets ^f	1.7 million (1975) 1.7 cusec. 100-130 feet Total capacity 2.9 million cusec.

Sources: a. The Agricultural Situation in the People's Republic of China, 1975-76, p. 26.

b. 1975 Annual Fertilizer Review (Rome: FAO, 1976).

c. Peter Schran, Farm Labour and Living in China, mimeo, (1977).

d. Randolph Barker, notes on 1976 trip to China.

e. Extrapolated from figures in Production of Machinery and Equipment in the People's Republic of China, Washington: CIA Research Aid, 1975), p. 13; and People's Republic of China: Handbook of Economic Indicators, Washington: CIA, 1976), p. 20.

f. The Agricultural Situation in The People's Republic of China and Other Communist Asian Countries, Review of 1975 and Outlook for 1976, (Washington: U.S. Department of Agriculture, Economic Research Service, 1956), p. 26, (for numbers). Dwight Perkins, "A Conference on Agriculture," China Quarterly 67 (September 1976): p. 606, (for capacity of the "majority" of the pumps). This figure clearly is subject to refinement when more data are available.

simply replace the former rural elite as new rulers in the countryside? Under what conditions does extensive participation emerge? When the government and the economy are merged, how is corruption avoided? What personal freedoms are sacrificed and which are expanded? The freedom from fear of drought or flood may be most precious to the older Chinese who suffered from these conditions in the past.

Trying to isolate the "efficiency" of collective agriculture may be futile. Too many factors interact for any single one to be crucial. In China there is evidence that collective agriculture, in conjunction with many other policies, has offered both growth and equity to most of the population.

NOTES

- (1) Frederick Crook, "The Commune System in the People's Republic of China, 1963-74," in U.S. Congress, Joint Economic Committee, China: A Reassessment of the Economy, 1975, p. 403.
- (2) Shahid Javed Burki, A Study of Chinese Communes, 1965 (Cambridge: Harvard East Asian Research Center, 1969), p. 38.
- (3) Benedict Stavis, People's Communes and Rural Development in China (Ithaca: Cornell Rural Development Committee, 1974), p. 55.
- (4) Selected Readings from the Works of Mao Tsetung (Peking: Foreign Languages Press, 1971), pp. 389-420.
- (5) *Ibid.*, p. 399.
- (6) Su Hsing, "The Struggle Between Socialist and Capitalist Roads in China After Land Reform," Ching-chi Yen-chiu No. 7, 8, 9 (July, August, September, 1965): SCMM 495 pp. 1-18; 498 pp. 1-16; 499 pp. 19-33. This statement is at SCMM 495 p. 16.

- (7) Kenneth Walker, "Collectivization in Retrospect: The Socialist High Tide of Autumn 1955-Spring 1956," China Quarterly No. 26 (April-June 1966): p. 27. See also Thomas Bernstein, "Cadre and Peasant Behavior Under Conditions of Insecurity and Deprivation: The Grain Supply Crisis of the Spring of 1955," in Chinese Communist Politics in Action, ed. A. Doak Barnett (Seattle: University of Washington Press, 1969), pp. 365-99.
- (8) Selected Readings, op. cit., p. 405.
- (9) Ibid.
- (10) John Wong, op. cit., pp. 158-65.
- (11) Selected Reports on Rural Economic Investigations, Hupeh People's Publishing House, p. 22 as cited by Su Hsing, op. cit., SCMM 498, p. 6.
- (12) Shih Ching-t'ang et al., Historical Data on China's Movement for Agricultural Cooperation, last volume. (San lien book shop), p. 254, as cited by Su Hsing, op. cit., SCMM 498, p. 6.
- (13) Selected Readings, op. cit., pp. 411-12.
- (14) Ibid., p. 412.
- (15) Thomas Bernstein, "Leadership and Mass Mobilization in the Soviet and Chinese Collectivization Campaigns of 1929-30 and 1955-56: A Comparison," China Quarterly, No. 31 (July-September, 1967): p. 11.
- (16) Vivienne Shue, Transforming China's Peasant Villages: Rural Political and Economic Organization, 1949-56, Ph.D. dissertation, Harvard University, 1975.
- (17) John Wong, "Peasant Economic Behavior: The Case of Traditional Agricultural Co-operation in China," The Developing Economies 9:3 (September 1971), pp. 332-49.
- (18) Ramon Myers, "Economic Organization and Cooperation in Modern China: Irrigation Management in Xing-Tai County, Hobei Province," in The Polity and Economy of China (Tokyo: Toyo Keizai Shinposha, 1975), pp. 189-212.

- (19) G. William Skinner, "Marketing and Social Structure in Rural China," Journal of Asian Studies 24:2 (1965): especially pp. 35-52.
- (20) Mao Tse-tung, "Summing-up Speech at Sixth Expanded Plenum of Seventh CCP Central Committee," (September 1955), in Miscellany of Mao Tse-tung Thought (Springfield, Virginia: JPRS, 1974), p. 20.
- (21) Mao Tse-tung, "On the Ten Major Relationships," (April 25, 1956), Peking Review No. 1 (January 1, 1977): p. 15.
- (22) Procurement was 54 million tons in 1954, and dropped to 49-51 million tons in the next three years. Audrey Donnithorne, China's Economic System (New York: Praeger, 1967), p. 357.
- (23) "Ch'iung-pang Tzu" Ching-sheng Fang-kuang Mang (The Spirit of a Pauper's Model Illuminates the Way) (Peking: People's Publishers, 1975), pp. 168, 169.
- (24) Some of the problems were aggravated by the tendency of administrative boundaries for the communes and sub-units to disregard the realities of social organization when the communes were first established. After 1961, administrative boundaries were substantially redrawn to reflect traditional marketing patterns and social organization. I discuss this in my monograph People's Communes and Rural Development in China, pp. 46-48. The analysis is based on the work of William Skinner.
- (25) Randolph Barker, "The Evolutionary Nature of the New Rice Technology," Food Research Institute Studies in Agricultural Economics, Trade, and Development 10:2, Stanford (1971): p. 118.
- (26) The diffusion of scientific values is described by Silas H. W. Wu, "The Changing Peasant Mentality in China, Some Personal Reflections After 27 Years," Understanding China Newsletter X:6 (November-December 1974): pp. 6, 8.
- (27) "How Chinese People Control Rivers (III)," NCNA Peking, November 1, 1974.
- (28) Ben Stavis, "Agricultural Performance and Policy: Contrasts with India," Social Scientist 5:10/11 (May/June 1977): p. 64.
- (29) "Sharp Rise of Farm Machinery," Peking Review 6 (February 7, 1975): p. 23.

- (30) Chen Yung-kuei, "Report at the Second National Conference on Learning from Tachai in Agriculture," Peking Review 2 (January 7, 1977): p. 14.
- (31) Detailed information on these plants is available in Hans Heymann, Jr., "Acquisition and Diffusion of Technology in China," in U.S. Congress, Joint Economic Committee, China: A Reassessment of the Economy, op. cit., pp. 726-27; Jon Sigurdson, "Rural Industrialization in China," in the same volume.
- (32) Computed from Cheng Chu-yuan, Scientific and Engineering Manpower in Communist China, 1949-1963, Washington DC: Government Printing Office, 1965, pp. 57, 78, 223, 236; Leo Orleans, Professional Manpower and Education in Communist China, Washington DC: Government Printing Office, 1961, pp. 128-29.
- (33) Plant Sciences in the People's Republic of China, Washington DC: National Academy of Sciences, 1975. See also Benedict Stavis, Making Green Revolution: The Politics of Agricultural Development in China (Ithaca: Cornell Rural Development Committee, 1975), pp. 26-40.
- (34) Science for the People, China: Sciences Walks on Two Legs (New York: Avon, 1974), pp. 127-28.
- (35) These types of research are reviewed in detail in a forthcoming article I am doing on the agricultural research and extension system in China.
- (36) Benedict Stavis, Making Green Revolution, op. cit., pp. 54-60.
- (37) Ben Stavis, "Agricultural Performance," op. cit., pp. 59-65.

8

Collectivization, Modernization, and Embourgeoisement: The Contemporary Kibbutz William Safran

The Israeli kibbutz may be typologically classified together with the collective agricultural settlements of the USSR and other communist countries. The kibbutzim share the following features with the kolkhozy and their Eastern European and Chinese counterparts: there is common ownership of the means of production; land is publicly or communally owned; the emphasis is on the group over the individual and his aspirations; there are no individual monetary rewards; labor is disciplined; the principle of "from each according to his ability, to each according to his needs" is a guiding force; agricultural production is for the good of the whole nation; and there are distinct forms of internal democracy.

The experience of the Soviet Union and most other communist countries has suggested that, for a variety of reasons, some of the expectations of collectivized agriculture have not been fulfilled and that it is, therefore, appropriate to advance the hypothesis that collectivized agriculture is inherently less efficient than private agriculture. The realities of the Soviet agricultural universe, moreover, evince the following problems, which, taken together, permit one to posit an archetype of collectivized agriculture: the backwardness of agriculture compared with industrial technology, inadequate "civic culture" socialization, insufficient identification by the individual kolkhoznik with the property and the purposes of the kolkhoz, low participation in elite recruitment and other political processes, and excessive outside expert intervention and political control that includes the imposition of minimum production quotas.

PRODUCTIVITY

The Israeli kibbutz does not conform to the model sketched above. To take the matter of productivity first: in 1976, the kibbutz population accounted for 3.5 percent of the country's inhabitants - a slightly lower proportion than in previous years - yet it accounted for 10 percent of the country's total output, or three times the national per capita share. In dollar terms, the per capita productivity of kibbutz residents, including children, was more than \$11,000.

In agriculture, the kibbutz created more than 50 percent of the raw national output. The proportion of the total wheat production was 52 percent; of sugar beets, 66 percent; cotton, 87 percent; apples, pears, and bananas, 70 percent; potatoes, 65 percent; avocados, 68 percent; fishing and fish breeding, 95 percent; fruit trees, 38 percent, which produced more than 52 percent of the nation's fruit. Although the kibbutzim had only 40 percent of the nation's milch cows, they provided 52 percent of the milk; nationally, a cow gave an average of 5,500 liters of milk, while the annual average for the kibbutz cow was 7,000 liters. In poultry production, where the moshavim (cooperative smallholder's settlements) have been traditionally strong, the kibbutzim accounted for about 60 percent of the total. (1) In 1974 the kibbutz had 11 percent of the layer hens, but produced only 10.1 percent of the eggs - an indication that the moshav might be just as productive as the kibbutz in a sector that does not lend itself to mechanization. In citrus, one of the remaining strongholds of private farming, kibbutzim provided between 60 and 65 percent. (2) In 1974 the kibbutzim owned 63 percent of the cottonpicking machines, but produced 87.1 percent of the cotton. In total agricultural production, including processing industries, the kibbutzim accounted for 40 percent of the total, or thirteen times its population share. The role of the kibbutz as an earner of foreign currency is equally significant. In 1976 the kibbutzim accounted for \$160,000,000 out of the national \$330,000,000 in agricultural exports. These production figures are all the more impressive if one keeps in mind the fact that less than half, 43 percent, of the total Jewish-owned agricultural land is worked by kibbutzim. Of the 491,000 residents of rural localities in 1975, only 96,400 were in 226 kibbutzim, as compared to 137,400 in 378 moshavim and moshavim shitufim (cooperative and semi-collective smallholders' settlements).

One of the reasons for the high productivity of the kibbutz is the division of labor existing in it. Unlike the moshav, where small plots are normally tended by individual families who are tied to their agricultural work on a daily basis, the kibbutz can assign its members to agricultural, industrial, menial, and other work on the basis of rotation, specialization, the priorities of the collective, and, occasionally, the personal choice of the members. Moreover, unlike collectives in communist countries, the kibbutz produce

is not requisitioned by the state, but rather it is sold at a profit for the kibbutzim. The collective profit motive has developed "an acute commercial sense" (3) among the kibbutzniks. They have increased the mechanization of agriculture and the "vertical integration" of farming; they have developed processing and marketing techniques; and they have been stimulated to industrialization, which now accounts for more than half of the total kibbutz income.

The productivity of collectivized agriculture in Israel cannot be compared with that of a pre-collectivization era as it can in other countries. The founding of kibbutzim in 1909 coincided, grosso modo, with the reestablishment of the Yishuv (the Jewish community in pre-independence Palestine); and there are no reliable statistical data for the productivity of Arab or Turkish landholdings cultivated by fellahin. Also, the private Jewish agricultural sector, the pardessim (fruit gardens) planted under the auspices of Baron Edmond Rothschild at the end of the nineteenth century, concentrated on highly-specialized sectors such as citriculture and viticulture. However, if the kibbutz is compared with other types of present-day agricultural communities, it can be seen that the average number of kibbutzniks employed in agriculture in 1975 (17,200) was only 60 percent as large as that employed by the moshavim and only 21 percent of the national total for agricultural employment. (4) It should be noted that, in terms of per capita land and water available to the kibbutz as compared to the moshav, there does not seem to be a significant difference. (5)

All the available evidence suggests that even a small kibbutz is at least as productive as a moshav of the same size, certainly in terms of per capita output. According to a kibbutz source, (6) there is no meaningful difference in productivity between older and more recently-established kibbutzim. Location is, however, an influential factor. For example, kibbutzim in the arid Negev or certain border areas are less productive, and less affluent, than kibbutzim in the Jordan Valley, which enjoy rich soil and reliable water supplies. Such kibbutzim are usually subsidized by the government and the associations to which they belong. Yet it is logical to assert that, within kibbutzim, the "size principle" is important. Larger kibbutzim are more productive than smaller ones, a situation which is manifested by the manpower which has been rendered redundant by mechanization. Larger kibbutzim can afford more mechanization than smaller ones; and, because they have a greater surplus of capital, they can branch out into industry. Between 1960 and 1970 the average annual profit of the kibbutzim was between 4 and 5 percent, fluctuating according to the level of interest rates and costs of production. Some kibbutzim had considerably higher profits, while others - possibly 20 percent of the total - had no profits, and could barely make ends meet. (7)

There are differences of opinion regarding the optimum size of the kibbutz; preferences have ranged from a population of 800, including 500 adult members, to 1200, with 800 adults. (8) In any case, it is held that the ideal

kibbutz must be large enough to be able to maintain an effective school. It should also be large enough to permit adequate diversification of agriculture, to support several teams of experts, and to contain three or four industrial plants - each employing forty to sixty people. Too large a size, while making for greater productivity, may weaken the egalitarian ethos which forms the basis of the kibbutz ideology and destroy its traditional sense of community. Of course, the kibbutz cannot be reduced in size through a policy fostering family planning; such a policy would nullify one of the traditional benefits of kibbutz life - the ability to raise several children per family at no extra cost to the parents - and would, moreover, weaken the patriotic image of the kibbutz.

THE IMPERATIVE OF INDUSTRIALIZATION

There is no question that partial industrialization, by creating a nexus between the urban Israeli and the farm element, has helped to prevent the kibbutz from becoming a parochial enclave of Israeli society. Indeed, industry has become an important economic component of the kibbutz, if only because the industrial option is a highly sensible one in the face of severely-limited supplies of land and water. Israel is a very small country, and much of it is located in arid zones that are unsuitable for cultivation. More than 90 percent of the known fresh water sources are already being utilized, with agriculture obtaining more than 75 percent of the water available. (9) The total agricultural production has increased impressively in the past two decades. However, the optimum ratio between the production of all foodstuffs to consumption - in relation to population growth, the rise in nutritional levels, and the improvement in food quality - was probably reached in 1960, when the ratio was 64 percent (Table 8.1).

The inevitable increase in the pace of industrialization in the country as a whole has been reflected in the kibbutzim as well. Between 1960 and 1972, there was a veritable industrial revolution in the kibbutzim. During that period, kibbutz industrial plants grew in number from 108 to 197; industrial investment increased by over 50 percent; and, while the total kibbutz population increased by only about 40 percent, the number of industrial workers more than doubled, from 4,860 to 9,944. In the present decade, industrial labor in the kibbutzim has accounted for more than 25 percent of the total employment (Table 8.2).

In 10 kibbutzim industry employed more than 50 percent of the workers; in 154 kibbutzim there was at least one industrial plant; and in some kibbutzim there were two or three. (10) In 1974 there were 259 industrial plants. They were not concerned merely with the processing of agricultural goods;

TABLE 8.1 National Food Production and Consumption

<u>Year</u>	<u>Food Production</u> (In million Israel pounds (IL) at current prices)	<u>Food Consumption</u> (In million Israel pounds (IL) at current prices)	<u>Percent of Consumption of Food Met by Domestic Production</u>
1952	125.7	284.6	44
1960	642.9	1,009.2	64
1970	1,648.6	2,899.7	57
1973	3,027.3	4,995.7	61

Source: HaHitpathuyot BeKalkalat Yisrael veHashpa'atan 'al HaKibbutz (Developments in Israel's Economy and Their Influence on the Kibbutz) (Tel-Aviv: Kibbutz Artzi, November 1975), pp. 6-7.

TABLE 8.2 Distribution of Kibbutz Work-Days According to Production Branches (In Percent)

	<u>1971</u>	<u>1975</u>
Agriculture	38.2	34.5
Industry	25.4	27.8
External Work	12.7	9.9
Service Sector	21.0	25.5
Investments	<u>2.7</u>	<u>2.3</u>
Total	100.0	100.0

Source: Shimon Ben-Ami, Haker et HaTnu'ah HaKibbutzit: Kovetz Netunim (Know Your Kibbutz Movement) (Tel-Aviv: Interkibbutz Division for Economic Guidance, Issue No. 106, July 1977), p. 15.

they also manufactured metals, machinery, plywood, furniture, chemicals, thermostats, and textiles. Industrial growth has also been particularly strong in electronics, plastics, and irrigation equipment; the last two categories are almost entirely dominated by the kibbutzim. There are also regional industrial plants, which are maintained jointly by several kibbutzim for manufacturing building materials, milling cotton, processing poultry, and packing and canning fruit. (11) There is no doubt that industrialization and mechanization have contributed to the 22 percent growth in the kibbutz worker's productivity from 1972 to 1976. However, mechanization is not the only reason. The absence of individual monetary rewards has rendered the kibbutznik much more immune than the urban worker to the pressures of inflation, which have led the latter to resort to strikes, slowdowns, and similar "sanctions."

THE KIBBUTZ AND THE PUBLIC AUTHORITIES

The proportion of kibbutz income allocated to consumption and investment is decided not by governmental agencies or central planning authorities - as tends to be the case in communist countries - but by the kibbutz itself at a general membership meeting. The kibbutz has no place for kukur-uzniki: (12) decisions on which crops to plant are made entirely by individual kibbutz, although, to be sure, such decisions are influenced by the internal and export markets and by the often limited supply of land, water, and manpower. The first, land, is now largely a constant; there is little likelihood that an established kibbutz will get supplementary acreage from the Jewish National Fund (JNF), the traditional purchaser of land, or the government. The second, water, depends upon the influence a kibbutz can exert, through its federation, upon the national water supply authorities. The kibbutzim pay annual bills to the national water carrier; in regions where water is expensive and where the government considers the existence of agricultural settlements desirable for defense or demographic reasons, the water bills are reduced by the government. (13) The government also imposes a tax on the kibbutz' agricultural land. In effect, this tax is a "rental fee" on government-owned land; it amounts to 2 percent of the kibbutz' net revenues derived from the land, as contrasted to a 4 percent tax on urban land. However, this may be scaled down to 1.5 percent or less for newly-established settlements. (14)

Occasionally the government is accused of bestowing excessive favoritism on the kibbutz in the form of tax reductions and subsidies. A commission established by Menahem Begin soon after he assumed the premiership found that the kibbutzim paid only 2 percent of the national taxes, or 35 per-

cent less than their share according to their population. Nevertheless, the commission concluded that this seeming disparity was due largely to the fact that all types of work done by men and women are calculated in the employment statistics of the kibbutzim in the cities and moshavim, homemaking, home repairs, and mothering are technically outside the economic sphere. The governmental subsidies granted to all kibbutz secondary schools similarly appears to be an exercise in official favoritism. In reality, the kibbutzim, in managing their own schools, relieve the government of an administrative burden; furthermore, the regional kibbutz high schools may enroll non-kibbutz students. (15)

There is a certain amount of "indicative" governmental intervention in agriculture. For both kibbutzim and moshavim, this intervention takes the form of technical advice from the Ministry of Agriculture, which puts forth a miscellany of recommendations on subjects from planting to marketing; it also allocates government credit, particularly for settlements composed of recent immigrants. The Ministry of Agriculture is assisted in this work by the Central Planning Authority for Agriculture, which includes not only Ministry officials but also representatives of kibbutz, moshav, and private farmers' associations. The Ministry and the Authority produce a "five-year plan" for agriculture that projects actual and desirable rates of growth of agricultural production, but does not set minimum quotas. For the period between 1971 and 1975, the government found it desirable to hold the growth of agricultural production to the same level as the 1966 to 1971 period - 8 percent. The fact that the growth of the water supply was anticipated to be no more than 3.8 percent between 1971 and 1975 and that there has been an occasional glut in dairy and poultry products has led the government to encourage a shift to industrial crops - peanuts and winter vegetables - which bring high yields. The government has also promoted quality control, and has helped in opening up markets abroad, especially through agreements with the European Common Market. (16) The government may also penalize kibbutzim that produce more than the maximum desirable quota of a certain product by imposing a heavier turnover tax.

For many years there existed a policy of price subsidization of staple foods, which insured artificially low consumer prices for eggs, milk, bread, and sugar. The kibbutzim benefited as much as the moshav (private) sector from this "neo-capitalist" policy of farm-income maintenance. Immediately after Begin's election victory, Simba Erlich, the "liberal" Finance Minister, began to entertain ideas about the gradual adaptation of the Israeli economy to the free-market model. The kibbutzim were understandably apprehensive about the implications of this shift, in part because they anticipated a reduction of water and land allocations for relatively less productive kibbutzim. The announced reductions in government subsidies for staple foods - a policy that had, in fact, been initiated by the Labor government after the October, 1973 war - would affect not only the consumer adversely in the

form of higher prices, but would reduce the agricultural income of the kibbutzim as well. The kibbutz critique of the new government policy was, however, based not on arguments of economic rationality, but on the contention that "the kibbutz is not merely an economic unit but (represents) a way of life founded on cooperation." (17)

THE CAPITALIST CONNECTION

Both the emphasis on collective incentive and the fact that the kibbutz flourishes within the context of, and in a symbiotic relationship with, a quasi-capitalist society have led to charges by dogmatic Marxists that the kibbutz is not really socialist; at best, it is utopian and, therefore, not an adequate instrument for displacing capitalism in society as a whole. (18)

In establishing the kibbutzim, the Yishuv pioneers were neither the promoters nor the victims of forced collectivization, nor did they dispossess any kulaks. The closest Jewish approximation to the kulak was Baron Rothschild, who functioned, theoretically at least, as an absentee landlord in the viticultural colonies of Petah Tiqva, Zikhron Yaaqov, and Rishon-Le-Zion, which he established in coastal areas in the 1880s. Originally, these colonies were controlled - as is frequently the case with the Sovkhozy - by outside experts and functionaries. The absence of any voice by the settlers in production decisions created apathy and bitterness, and productivity was low. In 1899 the settlements were put under the nominal authority of the Palestine Jewish Colonization Association; in fact, they were made self-supporting and self-managing, and their productivity soon rose dramatically. (19) A better analogy to the kulak was provided by the Arab and Turkish landlords, whose holdings were worked by fellahin or, worse, altogether neglected; but forced expropriation played no role here either. The Jewish National Fund gradually acquired parcels of land, at exorbitant prices; and the preponderance of this land was, from the very beginning of Jewish resettlement in Palestine, assigned to the national, cooperative, or kibbutz sector. (20) Even today, not more than 10 percent of the total land included in pre-1967 boundaries is privately-owned, and this includes the Arab agricultural sector. (21)

It may be argued that there is, nonetheless, a permanent relationship between kibbutzim and capitalism or imperialism: to the extent that the kibbutzim were able to acquire land through the JNF from overseas capitalist donors, and to the extent that the kibbutzim received some of the inflow of overseas capital for machinery, the kibbutzim were in effect the recipients of capitalist largesse. In fact, however, most of the JNF money was - at

least until the late 1930s - collected from the masses of poor Jews in Eastern and Central Europe; Jewish capitalists of that time tended to be largely anti-Zionist.

Virtually all the early agricultural pioneers embraced the socialist ideal. Their commitment was reflected in the following principles, to which both the kibbutz and the moshav subscribed: no private ownership of land, self-labor and no hired labor, and mutual aid among members of settlements. (22) The voluntary kibbutz settlers, most of whom had intellectual backgrounds or pretensions, believed in socialism and in "doing things yourself" - in contrast to the Russian peasants who were forced into kolkhozy, and who were often illiterate and fatalistic (informed by a "subject" political culture). The "achievement ethos" (bitzu'ism) present in the kibbutz can, of course, be found in capitalist society as well. However, in the kibbutz achievement has always been stressed not for the sake of profit, but rather for psychic rewards, or for its own sake.

The kibbutz founders were interested both in rebuilding themselves and in building a new national community. (23) While it has been almost a truism that modern nation-building was impeded in many societies by the absence of a significant bourgeoisie, the founders of the Yishuv felt that modern community-building in Palestine might be impeded by the excessive predominance of bourgeois (capitalist) values. With its emphasis on physical work, orientation to the soil, and local (communal) patriotism, the kibbutz was intended to function as a counterpoise to the cosmopolitan orientations inherent in most Diaspora communities, and to rectify their "abnormal" occupational structures. Much of the kibbutz efficiency can be explained in terms of the early emphasis on "productivization" (24) of both idle land and underutilized manpower (muscle-power). To be sure, the "conquest of work" was, *inter alia*, intended to enable the Jews to be competitive with, and ultimately to be independent of, the Arab agricultural workers. (25)

POLITICS AND THE KIBBUTZ

The Political Importance of the Kibbutz

However, there were, and still are, other raison d'être for the kibbutzim besides the economic and the ideological. The kibbutzim were intended from the outset to be not merely production units, but also "social mobilization systems." (26) They were to be havens for unemployed urban workers, and outposts of defense against marauding Arabs. Indeed, the popularity of the kibbutzim today derives from the fact that - in addition to

productivity - they have continued to shoulder responsibilities for the absorption of immigrants, the ideological mobilization of the country's youth and adult electorate, and national defense.

The connection of the kibbutz with national security - manifested by the fact that 12 to 15 percent of the officers corps has been recruited from the kibbutzim and by the fact that about 25 percent of the casualties during the Six-Day War of 1967 were kibbutzniks - has been statistically demonstrated. During periods of relative peace - 1878-1914, 1922-29, 1930-35 - only 35 kibbutzim were established, compared to 49 moshavim and 39 villages of private farms. During periods of internal tension and violence of war - 1920-21, 1936-39, 1940-45 - 110 kibbutzim were founded, compared to 79 moshavim and 42 private villages. (27) The fact that it is less expensive to establish kibbutzim than other types of agricultural communities is an additional consideration during wartime, when there is an unusual strain on the public budget. Often, the choice of location of a new kibbutz - as in the case of nahals (paramilitary settlements), many of which are later transformed into civilian kibbutzim - is determined by more general national considerations: the defense of borders, or the "creation of facts" (e.g., holding specific strategically important lands in the occupied areas).

While peasants in the USSR were ideologically "immature" and were viewed as an impediment to the achievement of the nation's main political goal of socialism, the kibbutzniks were ideologically sophisticated and, as "islands of Jewish sovereignty," (28) were the harbingers of what the Yishuv hoped ultimately to achieve: national independence. In the USSR and some other European communist regimes, a gulf often exists between the collective farmer and the urban resident. Despite references in the constitutions of the USSR and its constituent republics to gosudarstvo rabochikh i krestyan (a commonwealth of "workers and peasants"), despite the token representation of kolkhozniki in the federal and subfederal soviets, and despite occasional - and ill-fated - attempts at the creation of agroroda, the kolkhoznik appears to be divorced from the urban proletariat and to constitute a neglected political subculture. In contrast, the kibbutzim are closely related to the urban working class, and constitute a political elite. There are historical, geographical, and psychological reasons for this.

The Kibbutz as Vanguard of the Urban Masses

Israel is a small country where urban and kibbutz residents are only minutes apart. One of the earliest manifestations of the unity of town and farm labor was the Gdud Ha'avodah (Labor Battalion), which was founded in 1920. By emphasizing the idea of "self-labor," the Gdud tried to obviate

conflict between an exploiting entrepreneur and an enslaved proletariat. Originally concerned with road-building, the Gdud implanted itself in - and, indeed, helped establish - a number of kibbutzim. The Gdud disintegrated within less than a decade, after merging with Kibbutz Meuhad which it had, in effect, co-founded. The Gdud's heritage of ideas comprised establishment of sick funds, work discipline, founding of settlements, ideological discipline, egalitarianism, patterns of internal democracy, self-defense, and the notion that surplus income should be used both for the betterment of the conditions of the workers and for economic expansion. (29)

The nexus between kibbutzim and the urban masses is seen in the dissemination of the cooperativistic ethos throughout the country. This is reflected in cooperatives for housing, provident funds, industry, consumers, credit, and others - totaling nearly 2,000 organizational units. Furthermore, there is the kibbutz connection with the Histadrut (the General Confederation of Israel Workers), which embrace more than 80 percent of Israeli workers and their dependents. The kibbutzim and the moshavim are affiliated to the Histadrut, whose marketing cooperative, Tnuva, handles most of the kibbutz produce. Kibbutzniks are strongly represented in Histadrut leadership bodies, and are very active in Histadrut elections. Hanoar Haoved, the movement of working youth which is a component of the Histadrut, enrolls both kibbutz and urban youths between the ages of 13 and 18, but its educational activities are supervised largely by instructors furnished by the kibbutzim.

In most countries in which there is an environment of party competition, the agricultural sector is the most conservative, or "centrist," and the most religious in terms of general orientation and voting habits. Since leftism and secularism are the ideologies of a preponderance of the urban working class - or have been until recently - and, indeed, of the majority of Israel's population, and since the kibbutzim reflect those ideologies most consistently, it is no wonder that the kibbutzim have played a political role far beyond their numbers.

Most of the kibbutzim are affiliated with three major "movements," which are distinguished from one another according to ideological nuances. Each of these movements constitutes a major pillar of leftwing parties or factions. Thus the Ihud HaKvutzot VeHaKibbutzim, with 77 kibbutzim in 1975, is affiliated to Mapai, the oldest and largest component of the Israel Labor Party; HaKibbutz HaMeuhad, with 55, is affiliated to Ahdut Ha'avodah; and HaKibbutz HaArtzi, with 75, is connected with Mapam, the most leftist of the factions of the Labor Alignment. (30) These movements help their affiliated kibbutzim with investment loans, technical and management advice, the purchase of materials, marketing, and educational and research services. The kibbutz movements have differed on the basis of the relative weight assigned to social and ideological discipline, the class struggle and the build-

ing of socialism, the fostering of immigration and the degree of openness to new members. A detailed discussion of these differences is beyond the scope of this paper; many of the disagreements - except perhaps regarding approaches to the rearing of children - are largely irrelevant in the present context of kibbutz reality. There is an element of inter-movement collaboration via the Federation of Kibbutz Movements and there has been increasing interest in recent years in achieving organizational unity to parallel the fusions or "alignments" among the leftist parties; to some extent party and kibbutz movement factionalisms feed on each other. The strongest link is between the Mapam and the HaArtzi group, which transmits part of its membership dues to the Party. Although there is little formal linkage between kibbutz movements and party factions, there are personal linkages: members of kibbutz movements are represented in party secretariats, and are often "detailed" to the cities to work for their affiliated factions, particularly during campaigns for parliamentary elections. (31)

Role in Political Elite Recruitment

In view of the small proportion of kibbutzniks in the general population, their importance cannot derive from their absolute electoral potential. Rather, their power derives in the first place from their partisan voting consistency, and from the money they furnish to parties during election campaigns. Opposition voting does occur in the kibbutzim but, except in 1977, it has been rare and insignificant and is no longer serious enough to lead to the splitting-up of a kibbutz. Secondly, the importance of the kibbutz derives from the fact that it is better placed to furnish manpower for party work than is the urban electorate. Because of its division of labor, the kibbutz can more easily afford to release volunteer workers to the party, which reimburses the kibbutz or its federation, at least in part, for the temporary loss of manpower.

The foregoing accounts for the fact that kibbutzim have traditionally been over-represented in the Knesset (Parliament), both in relation to the national population and in relation to the votes actually furnished to particular political parties. In 1949, about 24 of the 120 members of the First Knesset were kibbutz members. However, this proportion has been gradually reduced as a consequence of the progressive urbanization of Israel: 18 kibbutzniks were in the Fourth Knesset of 1952; 19 in the Sixth Knesset of 1965; 17 in the Seventh Knesset of 1969; and only 7 in the Ninth Knesset of 1977. (32) The representation of the kibbutzim is proportionately much higher in the leftwing parliamentary factions - particularly in Mapam and Ahdut Ha'avodah - because the kibbutz federations have been successful in

insisting on the allocation of a high proportion of "safe" positions on the party lists to kibbutz candidates. It should be noted that the principle of the biennial rotation of the leadership within the kibbutzim is not paralleled in the Knesset, where the politicians who "represent" the kibbutzim tend to remain deputies through several legislative periods - or, at least, are likely to be put continually on the list of candidates for the Knesset. (33)

The importance of the kibbutzim is reflected to some extent in the cabinet, many of whose prominent members have had kibbutz connections of one sort or another. Premier Ben-Gurion promoted the kibbutz ideology immediately after World War II; Premier Levi Eshkol was a founder of a kibbutz, Degania B; Premier Golda Meir had lived in a kibbutz, Merhav, before becoming an official in the Histadrut; Yigal Allon and Aharon Yadlin continued to be members of kibbutzim during their tenure in the cabinet; Moshe Dayan, though raised in a moshav, was born in a kibbutz; Premier Rabin was born in Jerusalem, but his parents and sister were kibbutzniks, and he himself wished to settle in a kibbutz until he was diverted to a military career.

The kibbutzim may have only minority representation in the cabinet. Furthermore, kibbutzim do not always succeed in having "their" man head the Ministry of Agriculture. The kibbutz movements compete with the moshav movements in proposing nominees for Minister. If, occasionally, the Minister "represents" the moshavim, the Deputy Minister, or else the Director-General, of Agriculture is sure to be a spokesman for the kibbutzim. (34)

In any case, strong opposition on the part of kibbutz federations would make the construction of leftist cabinets, and the choice of leaders of left-wing coalitions, very difficult. Thus in April 1977, after the resignation of Premier Rabin, Shimon Peres was selected as the leader of the Labor Party only after the central committee of Kibbutz Meuhad, which preferred Yigal Allon, had succeeded in getting Peres to modify his political platform in a more dovish direction.

It is a matter of conjecture whether most cabinet members who have a kibbutz background are still considered kibbutzniks, since they usually maintain only a tenuous link with the kibbutz. Kibbutzniks furnish a high percentage of manpower to domestic elite positions and the diplomatic service. Many kibbutzniks who are sent abroad as shelihim (emissaries of one sort or another) return to the kibbutz; those who have reached significant career positions in politics or diplomacy generally do not return. Two notable exceptions only confirm this rule: Ben Gurion returned to Kibbutz Sde Boker in the Negev Desert after he retired as Premier; and Yigal Allon, who maintained at least two city residences during his cabinet service, retained his membership in Kibbutz Ginossar mainly to entertain foreign eminences.

There is little question that - at least for the first decade of Israel's independence - a kibbutz connection was valuable for members of the political elite. It enabled them to exhibit their socialist credentials and, occasionally, to camouflage their own embourgeoisement.

It is difficult to evaluate the influence of kibbutz socialization upon the behavior of the kibbutznik once he has been cast in a political role. On the one hand, there is no doubt that the egalitarianism of the kibbutz has been reflected in the irrelevance of occupational background in officer-soldier relationships on military bases, in the informal dress of public figures, and in the first-name basis of social intercourse between superiors and inferiors in the civil service; some embassies, notably the Israeli embassy in Moscow under Golda Meir, have even been patterned after a kibbutz. On the other hand, it has been argued that "the former kibbutz members (in the civil service) as a group are now ideologically more similar to the group of civil servants who were never kibbutz members than they are to those civil servants who are now kibbutz members." (35) Nonetheless, a kibbutz connection can serve as a cushion to a member of the political elite should he fail in politics or fall from grace: when Dov Zakin, the leader of the Mapam faction in the Knesset, failed to get reelected in 1977, he announced that he would return to his kibbutz and take charge of its vehicle shed; (36) and when Asher Yadlin, the head of the Histadrut's sick fund, was sentenced to prison for embezzlement, he remarked that "my pioneering-kibbutz background will make it easier for me to live in the same cell with other inmates and to lead with them a quasi-communal life." (37)

THE KIBBUTZ AS AN IDEAL-TYPE

The existence of the kibbutzim as collectivistic islands in a quasi-capitalist polity (38) has led to a number of paradoxes, both for the kibbutzniks and for the rest of the population. Economic maturation and stress on urbanization have been reflected in the relative decline of the Jewish population in Israel's rural sector: from 20 percent in 1949 to less than 10 percent in 1975. And this has been accompanied by an increasing preference for the moshav over the kibbutz: between 1949 and 1969 only 130 new kibbutzim were established, as against 309 moshavim; the kibbutz sector declined in the same period from 6.2 to 3.6 percent of the population; (39) between 1948 and 1972 only 20,000 new families settled in kibbutzim.

While the average Israeli clearly does not intend to settle in a kibbutz, he nevertheless identifies strongly with it. Many urban Israelis are proud of the fact that they have had significant kibbutz experiences; others wish they had stayed in the kibbutz, regret the fact that they never joined it, or envy

those who actually live in it. These feelings for the kibbutz tend to be fortified during wartime, not only because the country recognizes the military contributions of kibbutzniks, but also because its communal self-sufficiency in staple foods helps the kibbutz maintain a relative affluence even when the "normal" machinery of economic transactions tends to malfunction. After the October War in 1973, the kibbutzim were largely immune to the shortages of eggs and certain other agricultural products. Just as Parisians took advantage of their family connections in the countryside to secure "beurre, oeufs et fromage" during the Occupation, so many Israeli townspeople took short trips to their relatives or friends in the kibbutzim to obtain their eggs.

The very existence of the kibbutz compensates vicariously for the "Levantine" orientations, the opportunism, and the "spiritual Americanization" of many urban Israelis. (40) It helps to legitimize Israel's claims to the land, and it "balances out" - if it does not nullify - the currently fashionable description of Israel as a "capitalist-imperialist" injection into the Middle East. Finally, the existence of the kibbutz has a certain psychological and moral utility for Jews in Western industrial democracies; its collectivist-idealist orientation compensates vicariously for their bourgeois self-centeredness and their concern with "making it" on the basis of individualism. If such compensation provides an added impetus for monetary contributions to Israel or if it attracts foreign volunteer workers in agriculture, then the kibbutz can be said to have played its role as a purveyor of foreign capital or labor.

EMBOURGEOISEMENT AND ITS ATTENDANT PROBLEMS

For its part, the kibbutz could not help but be affected by the tides of modernization. The achievement ethos of the founding fathers, which had expressed itself in a concern with nation-building and ideological purity, now tends to express itself - among native-born kibbutzniks who are impatient with ideology - in a growing concern, collectively, with profit maximization, the support of its artists and musicians, and, individually, with increased personal comfort. (41) Curiously, much of the pioneering outlook of the early kibbutz founders seems to have been taken over by the non-kibbutz religious youth; Gush Emunim (Bloc of the Faithful), which has been active in putting up "illegal" settlements in Judea and Samaria, is one such group.

The conflict between modernity and equality is illustrated by the kibbutz approach to higher education. The virtual universalization of secondary school education in the kibbutz has not been considered sufficient; kibbutzniks are increasingly interested in higher education. Such interest not only "func-

tional," a favorite kibbutz expression, in that technical expertise is needed for solving existing problems and anticipating future developments. But also, kibbutzniks may have learned to appreciate the snob value of university degrees from their urban confreres. Nonetheless they justify their own growing interest in higher education in terms of the following needs: to train teachers, to enable kibbutzniks to spread their ideology outside the kibbutz, to enhance their members' prospects for "self-realization," and "to widen their spiritual horizons." At the same time, they are aware that creating a diploma-holding sub-group among themselves might be harmful to kibbutz equality and democracy. (42) About 93 percent of the members who were born or raised in kibbutzim have high school diplomas, as contrasted with about 50 percent of the general Jewish population; but only 9 percent of the kibbutzniks who have graduated work on jobs whose levels are commensurate with their education. (43) This disparity accounts for the growth of work dissatisfaction, and puts in question the desirability of maintaining, let alone improving, the existing educational levels.

"Collective selfishness" has led to envy and resentment of kibbutzniks by town dwellers, who sometimes consider the older, well-established kibbutzim as akin to country clubs; the kibbutzim have Olympic-sized swimming pools, good libraries, more economic security, organized vacations abroad, less crime, and better educational facilities than urban Israelis, particularly the residents of development towns. The perception of kibbutz affluence by outsiders has even created a certain tension between the kibbutzniks and their historic allies, the urban working class. A typical expression of resentment of kibbutz life by urban Israelis was a letter to the Editor of the weekly Ha'Olam Haze. (44) Kibbutzniks were accused of having "airs" and calling themselves "socialists" and "progressives" while living the most affluent life style in the country and producing a type of youth that is "fat, phlegmatic and stupid." Yitzhak Ben-Aharon, a former general secretary of the Histadrut, was reported to have said that the kibbutzim have done so well for themselves they should be less inward-looking and show greater concern for the people, the region, and the environment. (45)

While the affluence of the kibbutz attests to its success as an economic unit and to its beneficent impact on the country as well as the individual kibbutznik, such success has a certain negative consequence for the ideological credibility of the kibbutz. Of course, even in the past, kibbutz reality never conformed completely to its ideological aspirations. Despite the belief in sexual equality, work specialization - particularly in the past two decades - has increasingly resulted in women being assigned such traditionally feminine work as taking care of the kitchen, the laundry, and the children. Research done jointly by two kibbutz movements showed that in 1970 only 2.5 percent of the young women worked in industry, contrasted with 31 percent of the young men; 13 percent were in agriculture, as against 60 percent of

the young men; however, 18 percent worked in personal services, as compared to 2 percent of the young men; and 62.5 percent of the young women had jobs relating to the care and education of children, as against 3 percent of the young men. (46)

The vocal anticlericalism of the kibbutz - except, of course, for the handful of Orthodox kibbutzim - has never prevented the infusion of a pseudo-Judaism. Shabbat and other religious festivals have been celebrated in a national-secularized form; the bar-mitzvah rite has often been celebrated in conjunction with induction ceremonies of youth movements. Similarly, in many kibbutzim Haggadahs used at the celebration of Passover have been re-written in such a way as to stress national, naturalistic, and agricultural themes at the expense of theological-eschatological ones. (47) In this connection it should also be noted that, although the kibbutzniks frequently voice their resentment at the excessive influence and the "theocratic" aspirations of the rabbinate, they share some of its norms in a considerably attenuated fashion. The romantic liaisons between young kibbutzniks and gentile foreign volunteers working on kibbutzim during and after the October War of 1973 were often deplored and discouraged by kibbutz parents who had grown up in Europe.

In the past, the egalitarianism of the kibbutz was modified to some extent by certain subtle status distinctions among - in descending order - vat-ikim (founders and old-timers), new members, olim badashim (recent immigrants), and volunteers and other temporary residents. Despite the "crisis of values" on the kibbutz, (48) and despite the impatience of the native-born kibbutzniks with the ideological concerns of their progenitors and the frequent disparagement of "Zionism," - tsionut is sometimes used as a synonym for "empty talk" - the kibbutzniks remain intensely patriotic and socially conscious. Nevertheless, the more the kibbutz shows itself to be socially, politically, and militarily responsible, the more the manpower it has to release; (49) and this must be compensated for by hiring laborers from the outside, an affront to kibbutz ideology.

This practice began in the early 1950s - during the period of mass immigration - and was justified as a patriotic response by the kibbutzim to appeals for help in finding employment for newcomers. The hired labor trend has assumed significant proportions since the early 1960s, particularly in the industrial sector. By 1969, 6.7 percent of all labor in HaKibbutz HaArtz, representing the most leftist movement, was hired; in Ihud HaKvutzot VeHa-kibbutzim, representing the most "moderate" movement, the figure was 25 percent - 20 percent of agriculture labor, and 5 percent of industrial. (50) In 1976, there were 7,000 paid laborers in kibbutzim, in addition to approximately 3,500 in regional kibbutz industries. (51) This external help, in strictly numerical terms, counterbalances those kibbutzniks who do not directly contribute to production: the invalids, the sick, the reservists, and

those sent out on youth movement or diplomatic assignments. However, in addition to being an embarrassment to the kibbutzim because it violates the principle of "self-labor," the phenomenon of hired labor exacerbates the relationship of the kibbutzniks to the Histadrut of which they are a component; and, in the sense that the kibbutz collectively is put in the position of a paying boss, the solidarity between the kibbutznik and the urban working class is weakened. Moreover, insofar as many of the hired laborers are the underprivileged, largely "Oriental" Jews who have been called "the second Israel," the practice tends to weaken the image of the kibbutz as the vanguard of an egalitarian and pioneering society. This condition remains despite efforts by kibbutzniks to reduce the social and cultural gap between themselves and the inhabitants of development towns through tutorial and youth club work. These points are brought out frequently in the periodic colloquia involving kibbutzniks and representatives of the urban working class. (52)

Another phenomenon - with equally serious implications for kibbutz ideology - is related to the prosperity associated with industrialization. If kibbutz industries are to function - as they must - in a competitive environment, they must be based on technological expertise and efficiency; and these can be maintained only at the price of the introduction of a hierarchic system based on industrial roles. To the extent that the industrial component of the kibbutz economy is more profitable than the agricultural, the managerial and skilled elements of the industrial work force must ultimately enjoy greater prestige within the kibbutzim.

In addition to status distinctions and tensions between agricultural and industrial workers and between kibbutz members and hired workers, a "tertiary" sector is growing that distinguishes between menial and white-collar workers. (53) There is also an increasing distinction between the older and younger kibbutz members. In many kibbutzim - 100 to 150, according to estimates (54) - members over 55 or 60 years of age outnumber younger adults; this is the result of increased longevity combined with the attrition of younger men as a result of war. The kibbutz, as a welfare state in microcosm, is committed to full employment as well as to the collective responsibility for taking care of its aged. However, the relative difficulty encountered by older members in their attempts to learn the new skills required by mechanization affects their self-esteem and their traditional social status as "founders" or ideological mentors. (55)

While these tensions are not so serious as to be translated into alienation, the petty frustrations resulting from work dissatisfaction have been troublesome enough to lead to the suggestion that "all members who work in industry . . . will enter in an orderly fashion a 'year of service' in such traditional kibbutz branches as kitchen, children's compound (and) household." (56) Nevertheless, the frustrations have been kept at a minimum because the heritage of work democracy and collective responsibility is still strong.

The hierarchy generally implicit in the industrial setting is moderated by a sense of equality and the close personal relations that are frequently shared between the supervisors and the workers; both groups are aware that the raison d'être of kibbutz industrialization is the prosperity of the collective, not personal achievement. (57) In those rare instances when industrialization severely violates kibbutz ideology and threatens collective comity, industrial plants may even be dismantled; this happened recently in Sdot-Yam, which was forced to close its canning plant. Nonetheless, to the extent that the kibbutz has entered the "post-industrial" phase in terms of its occupational structure, mechanization, and prosperity, kibbutzniks appear, however hesitantly, to be advancing - or regressing? - to a "post-collectivist" phase in terms of aspirations, tastes, personal achievement norms, and leisure-time activities. Between 1947 and 1970 the proportion of kibbutz expenditure for leisure-time activities grew more than fourfold, from 5.3 percent to 23.0 percent. Paradoxically, in the "pre-modern" kibbutz such activities were more sophisticated than they are today; the earlier socially-oriented and intellectual pursuits are gradually being replaced by travel, television, and other types of "canned" culture. (58)

The degree of general satisfaction among kibbutzniks is illustrated by the fact that fewer than 10 percent of them, and an even smaller proportion of those who were born or raised in the kibbutz, leave for the cities; yeridah (incidence of emigration) is minuscule. The kibbutz has, in theory, constituted a hospitable environment for immigrants; as pointed out above, aliyah (fostering immigration) has been one of the tenets of the kibbutz. The relative absence of occupational differentiation in the past obviated the competition between newcomers and old-timers that is so often found in the cities; and a communal sacrifice in behalf of immigrants is easier to make than an individual one. Nevertheless, the kibbutz has not been spectacularly successful in attracting new members.

In the years between 1970 and 1974 an annual average of only 3.74 percent of Israeli immigrants settled in kibbutzim. The interests of middle-class Ashkenazim, those of European origin, are too "privatized." The "orientals", those of Middle Eastern or North African origin, are insufficiently tuned in to European socialist ideology, and are excessively habituated to traditional familism. While the "Orientals" and their Israeli-born descendants now account for about 50 percent of the Jewish population of Israel, they make up only 25 percent of kibbutz membership. The immigrants from the Soviet Union - apart from being too urbane and often over-educated for kibbutz purposes - tend to equate the kibbutz, however erroneously, with the Soviet kolkhoz, which they perceive as too repressive. Of the total number of immigrants arriving in 1974, 2.4 percent settled in kibbutzim; but only .6 of a percent of the Asian and 9.2 percent of the Eastern European immigrants settled there. (59)

The partial "depolitization" - or weakening of ideology - within the kibbutz has been painfully recognized by kibbutzniks, who assigned themselves a considerable share of the blame for the defeat of the leftwing parties in the parliamentary elections of May, 1977. The decimation of kibbutz representation in the new Knesset was indicative of a changed mood and a new electoral reality in Israel; the Ninth Knesset, with its enlarged contingent of professors, lawyers, ex-generals, and even businessmen (60) is in part a reflection of the embourgeoisement of the country and the reduction of the political weight of the kibbutzim.

During the elections, the kibbutzniks voted neither for the religious parties nor for the right-of-center Likud, which received substantial support from the working class, particularly among the "Oriental" communities and the development towns. Yet the significant vote in some kibbutzim for the recently-formed "Deomocratic Movement for Change" (DMC) (61) was to some extent a political expression of the embourgeoisement of the kibbutzim. Some kibbutzniks rationalized that many DMC politicians essentially belonged to the old family of leftists, and, indeed, one of the successful DMC candidates was a member of a kibbutz. However, a far larger proportion of that party's politicians and supporters had a business and upper-class background, and the party as a whole had produced a platform calling, inter alia, for more private enterprise.

Nevertheless, the kibbutzniks' identification with leftwing parties remains a constant, and is easily explicable in historic and ideological terms. To the extent that the kibbutzniks are patriotic and defense-oriented, they should prefer Likud, a party which is more nationalist and more "territorialist" in outlook. But the kibbutznik, despite his nationalism and his fighting abilities, is a "dove"; he is normally too oriented to - and kept too busy by - his communal and domestic universe to think in more comprehensive, strategic, and long-range perspectives.

Unfortunately, the kibbutzniks have undertaken to return to their former activism in order to help unseat the new premier, Menahem Begin, and his Likud-dominated government. (62) The retention of a majority, however slim, by the leftwing parties in the Histadrut elections in June of 1977 must be attributed at least in part to kibbutz efforts. Kibbutzniks have now promised to work harder in the development towns and among the working class youth; and they plan to be more active in the party branches, so as to re-fortify the old liaison between organized labor and the kibbutz.

EXPORTING THE KIBBUTZ ?

The foregoing analysis clearly depicts the divergence of the kibbutz from the agricultural collectives in communist polities, in terms of productivity,

affluence, voluntarism, and political involvement. Whether the kibbutz is a better model than the kolkhoz for Third World countries in quest of self-sufficiency in food production is a moot question. There have been those who thought that they could export the kibbutz to African countries. In the early 1960s, as African nations gained independence, their relations with Israel became fairly close. This was not only because Israel granted technical aid with fewer political strings attached than did the USA or USSR, but also because African nations were intrigued by the peculiar mix of Israel's private-public economic sectors and by the important role played by the kibbutz, the moshav, and the Histadrut. As early as 1958-59, Afro-Asian seminars were organized in Israel in an attempt to deepen this interest.

There are many reasons why African countries might be more attracted to the Israeli model of collective agriculture than to the Soviet one: voluntary methods are preferable to repressive ones; patterns of land ownership in many African countries have been as traditionally communal as in Israel and hence, have obviated the dispossession of kulaks; social controls by external apparatchiky are avoided; and the small-scale industrialization patterns of the kibbutz, which initially requires only limited capital and a limited technological infrastructure, might be sufficient for emerging African nations. Furthermore, the kibbutz can be viewed as one of the successful instruments in a country which achieved the national integration of a "tribe," or several "tribes." (63)

There are, however, reasons to question the utility of the kibbutz as a model for Africa or other Third World areas. While the "organic" social relationships prevalent in many non-Western societies could be used to foster an ethos of communal self-help, the kibbutz would seem inappropriate for Third World countries precisely because their "organic" relations are based on the traditional rather than the "functional" extended family. However, this matter remains controversial. In its early stages, the kibbutz was hostile to family life; it viewed the enlarged, functional, and fate-bound community as a desirable substitute. Yet today family structures are maintained more easily in the kibbutz than in urban and smallholders' settlements. While urban Israeli families are subject to the same disintegrative pressures found in urban areas in other countries, the kibbutz is a place where "veteran members have had the singular pleasure of watching their great-grandchildren grow up (together)." The kibbutz is "child-centered," and one may view it as "a cluster of . . . extended families." (64)

Secondly, agricultural collectives in Africa might not, for the most part, intervene with the public authorities as effectively as kibbutzim do for advantages in terms of land, credit, water, and markets. Political support has been an important component in the success of the kibbutz. African collectives would operate typically in the context of single-party systems, whose

leadership might be concerned primarily with urban industrialization and might be less sympathetic to the agricultural sector.

Thirdly, ironically the image of the kibbutz seems to have been weakened because it has obviously been successful, and hence does not appear to be properly "socialist." While in Israel socialism is essentially pragmatic, in many Third World countries it is often a pastiche of Marxist and other slogans. Because of its affluence, the kibbutz has been identified as a "planters' aristocracy" (65) and, especially since 1973, as a tool of a "racist" and "colonialist" regime. Kibbutzniks, for their part, are less interested in foisting their successful experiment on others than in making sure that it continues to serve its purposes in their own country.

* * * *

The author wishes to thank the following for their help in securing source material or supplying information: Jacques Bursztyn, Kibbutz Mishmar Hanegv; Fred Eytan, Tabenkin Institute for Kibbutz Studies, Tel-Aviv; Paul Laderman, Jerusalem; and Hannah Safran, Rehovot.

NOTES

- (1) Dov Goldstein, "Hakibbutz hogeg . . . umeharher," (The Kibbutz Celebrates . . . and Reflects), Yamim VaLeilot (Ma'ariv Weekly Supplement) (April 8, 1977): p. 8 ff. The article is an interview with Avraham Brom, the secretary of the federation of kibbutz movements, on the occasion of the fiftieth anniversary of the foundation of these movements.
- (2) Ya'acov Naktomi, "Megamot Hitpathut beMa'arakh Anfei haYitzur be-Mishkei HaKibbutz HaArtzi" (Development Trends in the Formation of Production Branches in the 'Kibbutz Artzi' Settlements), in HaKibbutz KeHevra Akeret, (The Kibbutz as an Alternative Society), ed., A. Lipsker et al. (Tel-Aviv: HaArtzi Central Office, February 1975), p. 79. See also the statistical tables in Rafi Bentor and Reuven Weigert, Haker et HaThu'ah HaKibbutzit: Kovetz Netunim (Know Your Kibbutz Movement) (Tel-Aviv: Interkibbutz Division for Economic Guidance, Issue No. 92, March 1976), pp. 14-16.
- (3) Goldstein, loc. cit.
- (4) Government of Israel, Statistical Yearbook, 1976, pp. 30-31, 360.

- (5) In 1973, the typical moshav family had 6-25 acres of land, 10-20 cows, and 500 chickens or turkeys. The typical kibbutz (with an average population of some 400 adults) had 1,000-4,000 acres of cropland, 400 acres of orchards, 300 milch cows, and 25,000 units of poultry. See Rafael N. Rosenzweig, "Israel's Agricultural Economy is Undergoing Vast Changes," Foreign Agriculture, 11, No. 37 (September 10, 1973): 10-12. In 1973-74, the water consumption of the kibbutzim was 526 million cubic meters, as compared to 358 million cubic meters in the moshavim (Statistical Yearbook, 1976, p. 421). It should be noted, however, that a considerable proportion of the water allocated to the kibbutz was used for industry.
- (6) Fred Eytan, Tabenkin Institute for Kibbutz Studies, Tel-Aviv; letter to author dated August 9, 1977.
- (7) Nahtomi, p. 81.
- (8) See HaHitpathuyot BeKalkalat Yisrael veHashpa'atan 'al HaKibbutz (Developments in Israel's Economy and Their Influence on the Kibbutz), Symposium of the Central Kibbutz Discussion Group, No. 8 (Tel-Aviv: Kibbutz HaArtzi, November 1975), pp. 34-35, 70.
- (9) In 1972-73, 1,297 million m^3 of the total of 1,676 million m^3 went to agriculture, 286 million m^3 to households, and only 93 million m^3 to industry. *Ibid.*, p. 5.
- (10) Uri Levitan, "HaMahapekha HaTa'asiyatit baKibbutz - Haim Husgu Mesimotav HaShonot?" (The Industrial Revolution in the Kibbutz - Have Its Various Objectives Been Achieved?), in HaKibbutz KeHevra Aheret, pp. 93-96. Cf. same author, "Te'us ve'Arkhei-Hayyim Kibbutziim - Nigud o Hashlama?" (Industrialization and Kibbutz Life Styles - Contradiction or Reconciliation?) HaKibbutz 2 (1975): 11-12.
- (11) The regional cooperation principle is also applied to secondary schools, choirs, chamber music ensembles, and so forth.
- (12) The epithet "kukuruznik" was applied to N. Khrushchev after he decided, in the early 1960s, that virgin forests in Russia be ploughed under so that kukuruz (corn) might be planted on a large scale. The failure of this "hare-brained scheme" contributed to his subsequent ouster as First Secretary of the Soviet Communist Party.

- (13) Haim Halperin, Agrindus: Integration of Agriculture and Industries (New York: Praeger, 1963), p. 84. It should be noted that the kibbutzniks are themselves defense-conscious. Furthermore, many Nahal (paramilitary) settlements become moshavim rather than kibbutzim.
- (14) A. Granott, Agrarian Reform and the Record of Israel (London: Eyre and Spottiswoode, 1956), p. 150.
- (15) Eytan, loc. cit.
- (16) See Michael E. Kurtzig, "Israel's 5-Year Plan Calls for Boost in Agricultural Production and Exports," Foreign Agriculture, 10, No. 18 (May 1, 1972): 10-12.
- (17) See Senta Yoseftal, "HaLikud, HaHaklout, VeMeshek Ha'Ovdim" (The Likud, Agriculture, and the Workers' Farm), Iggeret LeHavrei HaKibbutz HaShavu'a, Inter-kibbutz Informatiok Unit, June 1977, pp 4-5.
- (18) Alan Arian, Ideological Change in Israel (Cleveland: Press of Case Western Reserve University, 1968), pp. 79-80.
- (19) D. Weintraub, M. Lissak, and Y. Atzmon, Moshava, Kibbutz, and Moshav (Ithaca, N.Y.: Cornell University Press, 1964), p. 4.
- (20) Ibid., p. 29. In 1915, 25.6 percent of the (Jewish-held) land was purely private; in 1927, 3.5 percent; in 1936, 2.6 percent; and in 1945, 1.1 percent.
- (21) In principle, virtually all (Jewish-held) land is public property, but, in accordance with Jewish (religion-based) law, is "leased" on a forty-nine-year basis (in practice, in perpetuity) to the settlers. See Moshe Aumann, "Land Ownership in Palestine, 1880-1948," in The Palestinians, ed., Michael Curtis, et. al. (New Brunswick, N.J.: Transaction Books, 1975), pp. 21-29.
- (22) Elaine Baldwin, Differentiation and Cooperation in an Israeli Veteran Moshav (Manchester: University Press, 1972), p. 2.
- (23) In the words of an early pioneer song: "We have come to the land (Israel) to build it and to be rebuilt by it."
- (24) Weintraub, op. cit., p. 75.

- (25) Dov Ben-Meir, HaMashber BaHevra HaYisraelit (The Crisis in Israeli Society). (Jerusalem: Carta: 1973), p. 37.
- (26) Weintraub, op. cit., p. 26.
- (27) Ibid., p. 30.
- (28) Muki Tsur, What is Kibbutz? (Tel-Aviv: Federation of Kibbutzim in Israel, 1972), p. 77.
- (29) Halperin, op. cit., pp. 32-34.
- (30) In 1975 there were also thirteen religious kibbutzim, with their own organizations, generally affiliated with religious parties.
- (31) Arian, Ideological Change, op. cit., pp. 84-87.
- (32) Moshe Czudnowski, "Legislative Recruitment under Proportional Representation in Israel: A Model and a Case Study," Midwest Journal of Political Science 14, No. 2 (May 1970): 217-48; Avraham Brichta, "The Social and Political Characteristics of Members of the Seventh Knesset," in A. Arian, ed., The Elections in Israel (Jerusalem: Israel Universities Press, 1972), pp. 109-32. There is some inconsistency in the figures reported in these sources, possibly because of disagreement as to which parliamentarians should properly be counted as kibbutz members.
- (33) Cf. Moshe Meisels, "Maavak HaKisaot Ba'Avoda Rak Mathil (The Fight Over Seats Has Only Just Begun), Ma'ariv, March 11, 1977, p. 23.
- (34) See Yuval Elizur and Eliahu Salpeter, Who Rules Israel? (New York: Harper and Row, 1973), p. 275. In the present right-of-center cabinet headed by Menahem Begin, the Minister of Agriculture (Aryeh Sharon) represents neither the kibbutzim nor the moshavim.
- (35) Arian, Ideological Change, op. cit., p. 129.
- (36) Ma'ariv, June 2, 1977, p. 2.
- (37) Ma'ariv, March 8, 1977, p. 1.
- (38) It is estimated that, in 1975, roughly 50 percent of the economy was in the private enterprise sector; the rest was divided among the state, the Histadrut, and the cooperative-collective sectors.

- (39) Herzl Fishman, Ze Ekhpai Li: Eikhut HaHayyim BeHevra HaYisraelit (It Matters to Me: The Quality of Life in Israeli Society) (Tel-Aviv: Hotzaat Melo, 1974), pp. 74-75.
- (40) Cf. Avraham Wolfensohn, Demokratia VeIdealim Hevratim BeYisrael (Democracy and Social Ideals in Israel) (Tel-Aviv: Am Oved, 1972), pp. 88-89.
- (41) Ibid.
- (42) Menahem Rosner, Bnei-HaKibbutz veHaskalah (Kibbutz Members and Education) (Giv'at Havivah Center for Kibbutz Social Research, January 1976), p. 9 and passim. See also same author, Kibbutz veShivyon (Kibbutz and Equality), Symposium of the Central Kibbutz Discussion Group, No. 9 (Tel-Aviv: HaKibbutz HaArtzi, February 1977); Kibbutz, Haskalah, Akademizatziyah (Federation of Kibbutz Movements, 1976). There exist special regional kibbutz colleges but the creation of a kibbutz university, which has been frequently discussed, has so far not materialized.
- (43) Levitan, "Te'us veArkhei Hayyim . . . ," op. cit., pp. 11-27.
- (44) Reprinted in BaKibbutz No. 945 (March 1977).
- (45) Goldstein, loc. cit.
- (46) Yitzhak Ben-David, "HaMivneh HaTa'asukati BaKibbutz veHagormin leShinuyav" (The Kibbutz Employment Structure and Causes of Its Change), in HaKibbutz KeHevra Aheret, pp. 101-04.
- (47) See Hannah Herzog, "HaHaggadah HaKibbutzit," HaKibbutz, 3-4 (1976): 237-46. Regarding the involvement of Kibbutzniks in the arguments between orthodox and other forms of Judaism, see Moshe Kerem, "Hatnu'ah HaKibbutzit" (The Kibbutz Movement), in Petahim, June 1977, pp. 17-20.
- (48) Fishman, op. cit., p. 75.
- (49) In 1974, 9.7 percent of the work days of the permanent kibbutz was lost to military reserve duty. Bentor and Weigert, op. cit., p. 13. The external work to which kibbutzniks were sent from November 1976 to April 1977 included: missions abroad, the youth movement, the kibbutz research foundation, central headquarters for adult education, in-

service aid to new settlements, and the national immigrant absorption department. See BaKibbutz (Meuhad), No. 951 (May 30, 1977): 5.

(50) Nahtomi, op. cit., p. 80.

(51) Goldstein, loc. cit.

(52) For an example see Behina Mehudeshet shel HaBrit bein HaKfar ve-HaIr (Reexamination of the Alliance between Village and Town), Forum Series No. 4 (Kibbutz HaArtzi, Education Department, September 1975). Cf. the series of articles on kibbutzim and development towns by Levi Yitzhak Hayerushalmi in Yamim VaLeilot (Ma'ariv), July 8, 15, and 22, 1977.

(53) Exemplified, inter alia, by such services as tourism, ulpanim (Hebrew courses) for outsiders, and music festivals.

(54) Nahtomi, op. cit., p. 81.

(55) See the discussion by David Atar, "Hebet Gerontologi shel Mehkar HaTa'asiyah HaKibbutzit (The Gerontological Aspect of Kibbutz Industry Research), HaKibbutz, 2 (1975): 63-68.

(56) Avraham Cohen, "HaHitpathut Bit'hom HaKalkalah BaAretz veHashlahoteha 'al HaKibbutz" (The Development of the Economic Sphere and Its Implications for the Kibbutz), in HaHitpathuyot BeKalkalat Yisrael, p. 18.

(57) Cf. A. Tannenbaum, et al., "Hierarchy in Organizations: A Comparison of Hierarchy in Kibbutz and Other Socialistic and Capitalistic Enterprises," HaKibbutz, 3/4 (1976): 47-61.

(58) See Uri Mery, "Shinuim BiD'fusei HaPnai BaKibbutz" (Changes in Leisure-Time Patterns in the Kibbutz), HaKibbutz, 1 (1973): 73-102; Michael Gurevich and Tsippora Levy, "Televisia BaKibbutz," *ibid.*, pp. 103-120. Characteristically, the most leftwing kibbutzim have the lowest incidence of ownership of television sets.

(59) Bentor and Weigert, op. cit., p. 9.

(60) See Yehoshua Bitzor, "Arba'a Minyanim Hadashim BaKnesset" (Four New Sets in the Knesset), Yamim VaLeilot (Ma'ariv), May 27, 1977, pp. 5 ff.

- (61) Ma'ariv, May 18, 1977, p. 7.
- (62) Yigal Galai, "HaKibbutzim Hitoreru" (The Kibbutzim Have Roused Themselves), Yamim VaLeilot (Ma'ariv), June 17, 1977, pp. 12-13. For the record, it should be noted that at least one of the seven kibbutzniks in the new Knesset belonged to the Poalei Agudah, a religious coalition partner of the Likud. Ma'ariv, May 22, 1977.
- (63) This analogy is not perfect. It can be argued that since the original kibbutz settlers came largely from quite similar Eastern European backgrounds - among the pioneers there were few Oriental or "Anglo-Saxon" Jews - the kibbutz was not an exemplary agency of inter-communal integration.
- (64) Stanley Maron, The Kibbutz as an Alternative Way (Tel-Aviv: World Labor Zionist Movement, July 1973), pp. 5-6.
- (65) The term is taken from Dan Segre, "The Philosophy and Practice of Israel's International Cooperation," in Israel in the Third World, ed., M. Curtis and Susan A. Gitelson (New Brunswick, N.J.: Transaction Books, 1976), p. 10.

9 Conclusion

The previous chapters underscore the wide variety of experiences under collectivized agricultural systems. The relative successes of such systems, by almost any measure, vary widely. Quite likely each of the contributors to the study could point to one or more of the conclusions that follow and argue that particular points made do not apply to the agricultural system he researched. Yet, viewed comparatively, some generalizations about the successes and failures of collectivization do seem appropriate. This we assert, even while recognizing that very few - if any, at the more complex level - asserted patterns of human behavior can be said to apply universally at all places and all times.

IS COLLECTIVIZED AGRICULTURE LESS EFFICIENT?

Predictably, there is disagreement on the relative efficiency of collectivized and private agriculture. Although the latter seems to produce more food per unit of land than the former, there are exceptions to this; and the equation becomes even more complex when incentives, labor, and capital investment are accounted for.

Any assertion, however tempered, that collectivized agriculture is a poor productive mode might seem surprising in light of the evidence presented in this volume. Aside from the dismal record of the Soviet Union, where are the failures? Productivity has risen impressively during the postwar and post-collectivization years in many nations, such as China and Hungary. The Czechs and the East Germans sustain impressive levels of mechanization, labor productivity, and citizen nutrition.

Studying the achievements of a single collectivized nation sometimes obscures how well they compare with the achievements of non-collectivized nations sharing a similar climate and utilizing similar inputs. It is not easy to determine systematically how efficient the small private sector is in a Marxist-Leninist system; nor is it easy to control for different levels of inputs in pre- and post-collectivization eras. Nonetheless, any attempt to determine the relative efficiencies of private and collective agriculture must involve comparison.

This is often done crudely and impressionistically. Do not CMEA nations have to import grain? Are there not chronic meat shortages in Eastern Europe and poor diets in communist Asia? Do not the United States and Western Europe have a nagging problem with food surpluses? While all these questions can be answered in the affirmative, how important are they in a systematic and empirical comparison of the two systems?

Perhaps the most thorough comparative investigation to date was done by Gregor Lazarcik in a study for the Joint Economic Committee of Congress. Lazarcik, an agricultural economist, carefully constructed equivalent indicators for all important aspects of agricultural input and output. He collected these data for European nations and then investigated two sets of relationships. First, is there any variance between the nations of Eastern Europe with largely collectivized agriculture and the two nations, Poland and Yugoslavia, that abandoned their collectivization efforts and remain essentially private in the rural sector? Second, if one controls for differences in input, how do collectivized Eastern European systems compare with relative climatic analogs in Western Europe?

Collectivized vs. Private Agriculture in Eastern Europe

In a key finding represented by the data in Table 9.1, Lazarcik concluded that "the superior performance of the countries with private agriculture over the countries with socialized agriculture is evident in most growth measures since the mid-1950s, when Poland and Yugoslavia abandoned collectivization, and this superior performance continues until the present." (1)

Eastern Europe vs. West Germany

Lazarcik also compared the productivity of Eastern Europe with that of West Germany, a strong, but not exceptional, agricultural producer. West German land is less fertile than much Danubian land in the CMEA and it is

TABLE 9.1 Eastern Europe: Indexes of Total Output and Net Product
Per Hectare of Agricultural Land
(Indexes 1934-38 = 100)

	<u>Agricultural Output</u>		<u>Net Product</u>	
	<u>Socialized</u>	<u>Private</u>	<u>Socialized</u>	<u>Private</u>
Prewar	100.0	100.0	100.0	100.0
1950	81.1	117.2	76.3	113.3
1951	92.3	127.8	86.4	124.9
1952	89.6	115.9	84.4	110.8
1953	93.4	127.6	86.7	123.5
1954	91.3	123.6	83.6	119.8
1955	102.5	135.2	94.3	130.9
1956	96.0	128.8	85.5	122.8
1957	108.2	146.6	97.9	140.3
1958	113.1	150.8	103.2	144.6
1959	115.4	158.4	102.6	150.2
1960	118.6	156.3	101.7	148.5
1961	116.5	172.7	98.3	166.2
1962	114.7	154.3	94.0	143.6
1963	120.0	174.6	97.5	162.6
1964	124.9	177.1	99.7	164.7
1965	129.4	188.5	100.7	165.7
1966	139.9	201.7	110.1	183.5
1967	145.6	204.5	114.1	183.5
1968	146.0	213.3	110.6	189.7
1969	145.0	204.0	107.6	175.6
1970	143.7	206.7	101.5	171.7
1971	153.4	221.1	108.5	186.2
1972	164.2	234.4	116.4	191.9
1973	167.5	251.0	114.5	206.9

Note: Calculated from physical quantities weighted by FAO Eastern Europe and Soviet Union wheat-based price relative for 1961-65 period divided by acreage of agricultural land taken from statistical yearbooks of respective countries.

Source: U.S. Congress, Joint Economic Committee, Agricultural Output and Productivity in Eastern Europe and Some Comparisons with U.S.S.R. and the U.S.A., by Gregor Lazarcik, Joint Committee Print, Study Paper (Washington, D.C.: Government Printing Office, 1974), Table 13, p. 357.

outproduced significantly by Dutch dairy and livestock operations. Eastern European lands in recent years have nearly equaled West German levels of fertilization. Furthermore, the Eastern European states have invested more in agriculture than the West Germans. (2) Nonetheless, West Germany - with a farm sector comprised largely of part-time farmers and very small units - continues to lead Eastern Europe in both the crop and livestock sectors. Not only have yields been higher, but growth rates have been strong. Moreover, the East European farms have received much greater infusions of capital and assistance than have West German farms (Tables 9.2 and 9.3).

TABLE 9.2 Yields Per Hectare of Agricultural Land for Wheat Per Year
(Five-Year Averages)

	<u>Quintals per Hectare</u>				
	<u>1934- 38</u>	<u>1954- 56</u>	<u>1960- 62</u>	<u>1965- 67</u>	<u>1971- 73</u>
Bulgaria	12.5	12.8	17.0	28.0	33.7
Czechoslovakia.	17.1	19.1	24.6	25.5	35.6
East Germany	24.6	28.1	31.1	35.3	39.6
Hungary	14.0	13.6	17.9	23.1	32.2
Poland	14.6	14.1	18.7	21.5	26.1
Romania	13.3	9.1	13.0	18.9	23.1
Yugoslavia	12.9	10.1	16.7	23.8	27.3
West Germany	24.5	28.4	33.1	34.8	43.8

Note: Data for 1973 are preliminary. Calculated from statistical yearbooks of respective countries.

Source: U.S. Congress, Joint Economic Committee, Agricultural Output and Productivity in Eastern Europe and Some Comparisons with the U.S.S.R. and the U.S.A., by Gregor Lazarcik, Joint Committee Print, Study Paper (Washington, D. C.: Government Printing Office, 1974), Table 17, p. 363.

TABLE 9.3 Yields Per Head of Livestock for Meat,
Milk, and Eggs Per Year

	<u>Prewar</u>	<u>1954-56</u>	<u>1960-62</u>	<u>1965-67</u>	<u>1971-73</u>
<u>Meat per Pig in Kilograms</u> <u>of Live Weight:</u>					
Bulgaria	135	117	88	113	118
Czechoslovakia	132	96	97	16	132
East Germany	133	95	93	112	120
Hungary	152	98	112	120	140
Poland	79	78	86	92	102
Romania	129	78	88	92	105
Yugoslavia	86	91	95	110	122
West Germany	99	110	153	160	175
<u>Milk per Cow in Liters:</u>					
Bulgaria	450	648	1,358	1,864	2,010
Czechoslovakia	2,004	1,606	1,800	2,069	2,644
East Germany	2,549	2,341	2,557	3,079	3,500
Hungary	1,856	1,760	2,158	2,328	2,372
Poland	1,760	1,763	2,076	2,257	2,980
Romania	965	1,024	1,345	1,621	1,900
Yugoslavia	789	1,052	1,083	1,196	1,210
West Germany	2,489	2,957	3,389	3,666	3,920
<u>Eggs per Hen in Number:</u>					
Bulgaria	73	76	88	99	104
Czechoslovakia	124	96	106	150	192
East Germany	170	112	131	148	180
Hungary	66	75	82	97	120
Poland	71	86	94	96	175
Romania	56	68	84	91	112
Yugoslavia	70	60	62	76	102
West Germany	108	125	151	202	240

Note: Data for 1973 are preliminary. Calculated from statistical year-books of respect countries.

Source: U.S. Congress, Joint Economic Committee, Agricultural Output and Productivity in Eastern Europe and Some Comparisons with the U.S.S.R. and the U.S.A., by Gregor Lazarcik, Joint Committee Print, Study Paper (Washington, D.C.: Government Printing Office, 1974), Table 18, p. 365.

Private vs. Collectivized Agriculture within Collectivized Systems

Determining levels of production for private farms and/or plots within collectivized systems is a most difficult task. Evaluating the limited data that are available is not easy because one rarely knows the true level of input. Nonetheless, available bits of information underscore Lazarcik's findings. In the USSR a scant 3 percent of the cultivated land supplies nearly 33 percent of the agricultural output. (3) Hungarian private farms occupy "an insignificant part of (the) agricultural land, but their output in fruits, vegetables, and beef cattle is out of proportion to their area. They accounted for 7 percent of all cattle, 17 percent of all hogs, and 36 percent of all poultry recorded in 1965." (4)

According to Vaclav Holesovsky, the same disproportionate relationship exists in Mexico. Although the collective ejidos and the private farms occupy approximately equal land area,

only some 4 percent (of) farm units are responsible for four-fifths of total agricultural output and almost all gains in output and productivity. Thus, broadly speaking, ejidos are designed to fulfill the land-distribution objectives, while productivist goals are being promoted unsentimentally within the compass of a select portion of the private-farm sector. (5)

Clearly, the available comparative evidence places the performances of private farming ahead of collectivized agriculture. Thus, butter mountains in Western Europe and meat rationing in Eastern Europe are aberrations caused as much by public policy decisions as by natural or market factors. Collective agriculture's productive record in Soviet-type farm systems has been especially bleak, with an output per man-hour that remains abysmally below that of Western systems. Economist Robert W. Campbell concluded that "collectivization was a colossal policy blunder." (6)

Factors Affecting Efficiency and Productivity

Is collectivized agriculture as a mode of production inherently less efficient? Clearly it is not less efficient in Israel. Safran's examination of the Israeli kibbutzim demonstrates that the proper combination of incentives, inputs, and sociopolitical climate – the threat from without, which may be the most important factor of all – can result in collective farm units that produce with remarkable efficiency. What, then, is lacking in most of the

Soviet-style systems? Why do some of them perform better than others? Neither of these questions can be answered fully, but each is perceived more accurately as a function of several factors which affect the efficiency of collectivized systems.

The Motive and Means of Collectivization

Boguslaw Galeski distinguishes among several types of collective farm. (7) One variety, of which the kibbutz is an example, is created by believers in an ideology which puts a higher value on noneconomic than on economic goals. Most Soviet-style collectives profess to be of this genre, but are in fact representative of another of Galeski's types: collective farms organized by governments in order to reach national economic and social goals. In Israel the individual kibbutz was organized at the participant level; the Soviet-style collective was imposed by higher authority. This fact alone would seem to account for differences in motivation and satisfaction. However, Galeski also notes that the type of participant involved varies according to the type of farm, and this can affect productivity. The ideological commune, for example, attracts few peasants; it is founded by people whose sophistication matches their motivation. (8) In contrast, leaders of the Soviet-style farm must exert an effort in order to motivate and train peasants who are sometimes resistant to the collective system.

The sources and manifestations of peasant resistance to imposed collectivization have been well documented. Peasant opposition was clearly stronger in the USSR than in Czechoslovakia, but in all cases where there was resistance it probably played both a productivity-reducing and a destabilizing role. The most efficient collective systems are those in which the peasantry made the transition from private ownership and operation voluntarily or through a genuinely attractive set of incentives from the state. The most disruption, predictably, occurs when collectivization is achieved through large scale coercion. (9)

Two stages usually follow forced collectivization. First, there is a relatively short period with substantial decreases in production. This might be expected in any major overhaul of the social and economic order, but it seems to be exacerbated by forced collectivization. The second phase is a lingering period of stable, yet unimpressive, productivity. (10) Growth and production stagnate until the system can be consolidated and serviced with investments and other inputs. At this juncture, growth resumes in some cases, while sluggishness and inefficiency prevail in others. (11)

Investment

Regimes that generously support their collectivized agricultural sectors with investments tend to reap significant returns in accelerated agricultural output. In Eastern Europe this relationship emerged most clearly in the East German and Hungarian cases, but it is doubtlessly valid for most nations.

While there is no firm statistical evidence, many cases suggest that increased investment stimulates as much growth through improvement in morale as through better machinery or processing equipment. The relatively low level of agricultural mechanization and sophistication which prevailed in most East European nations at the time collectivization began required massive infusions of capital. After a slow start, most countries have responded to the need to modernize and systematize production. Table 9.4 demonstrates both the relatively high rate of investment growth in collectivized systems and the sizeable share this investment comprises in each nation's total capital spending.

Yet, how well do collectivized systems respond to capital stimulation? Investment in Eastern Europe has easily outpaced that in West Germany; and the Soviets have outpaced even their Eastern European neighbors. Soviet agriculture received 19.6 percent of all investment during the 1961-65 plan period; by the 1971-75 plan period, this figure had grown to 26.2 percent. (12) The West Germans, however, maintain substantially better performance levels and have more efficiently processed and absorbed agricultural investment. (13) The same low cost-benefit ratio has plagued the Soviet Union. As Karl-Eugen Wädekin notes: "When Soviet industrialization reached the level where capital inputs were being made to collective agriculture in greater amounts, the cost of agricultural growth also increased by leaps and bounds." (14)

Immutable Factors of Production

Most Soviet-inspired collectivization plans have their philosophical and "scientific" foundation in Marx's and, especially, Lenin's exhortations to turn each farm into a rural factory. "Industrialization of the countryside" is seen as the solution to all problems. Under this theory, production would be systematized and no longer haphazard; labor and land productivity would soar with planning, planting, and harvesting carried out through a systematic division of labor. A corollary usually associated with this theory asserts that increased farm size is a desirable and more efficient use of land, labor, and machinery. Bigger is better. Indeed, the Soviets have a name for it, "gigantomania."

TABLE 9.4 Gross Fixed Agricultural Investment and its Share in the Total Investment

	Indexes of Gross Fixed Agricultural Investment, 1951-55=100				Agriculture's Share in the Total Investment (%)				
	1956-	1961-	1966-	1971-	1951-	1956-	1961-	1966-	1971-
	60	65	65	73	55	60	65	70	73
Bulgaria	259	394	547	646	12.8	20.6	21.6	16.3	18.0
Czechoslovakia	228	271	278	326	11.2	16.1	14.4	11.1	10.0
East Germany	100	120	194	223	---	9.7	13.2	14.1	13.1
Hungary	112	222	404	591	16.6	15.3	17.3	20.3	20.1
Poland	192	313	533	690	10.1	12.5	13.9	16.1	15.1
Romania	242	611	933	1,182	9.4	15.9	19.1	15.9	14.3
Yugoslavia	256	521	793	1,148	9.2	13.1	10.7	9.2	9.0
West Germany	177	227	217	210	4.8	5.0	4.7	3.4	3.0

Notes: Data for 1973 are preliminary. Bulgaria: State and collective farm investment in leva at 1956 and 1962 prices. Czechoslovakia: Total investment in agriculture in crowns at 1959 and 1967 prices. East Germany: Agriculture includes forestry and water management; investment in marks at 1967 prices. Hungary: Investment in forints at 1959 and 1968 prices. Poland: Investment in zlotys at 1961 and 1971 prices. Romania: Investment in lei at 1959 and 1963 prices. Yugoslavia: Investment including private farming in dinars at current prices. West Germany: Investment at constant 1954 and 1962 prices. Calculated from statistical yearbooks of respective countries.

Source: U.S. Congress, Joint Economic Committee, Agricultural Output and Productivity in Eastern Europe and Some Comparisons with the U.S.S.R. and the U.S.A., by Gregor Lazarcik, Joint Committee Print, Study Paper (Washington, D.C.: Government Printing Office, 1974), Table 27, p. 378.

Empirical evidence analyzed regularly by Western economists tends to discount this view. The manager-operated farm - the modern version of the family farm - has consistently been cited for best statistical efficiency among farm types throughout the world. The reasons for this range far beyond the profit motive. They are recounted by Vaclav Holesovsky in terms of both farm size and division of labor:

... technological economies of scale tend to be exhausted at a much earlier point in agriculture than in manufacturing. . . . transportation costs rise with distance from the farm center. Efficiency of management declines with size because of the difficulty of maintaining a uniformly intimate knowledge of soil, crop, and weather conditions. Furthermore, division of labor has fewer opportunities in agriculture. On a given area in agriculture, successive operations have to be performed in sequence under the dictate of an immutable sequence of biological processes. The duration of the production cycle cannot be compressed by a greater division of labor. (15)

The care of living plants and animals requires skills and attitudes not amenable to the controlled conditions of industrial manufacturing. Hence, any slack in the productive efficiency of collectivized agriculture may result less from the fact of collectivization than from the misapplication of manufacturing techniques in a non-manufacturing sector.

The Pitfalls of Aggregation

Inevitably, examination of the factors of production and productive efficiency of collective agriculture from a cross-national perspective obscures important differences within and among collectivized systems. First, the bulk of comparative efficiency analysis has dealt with the countries of Eastern Europe. Safran makes quite clear the anomalous superiority of collective over private commercial farming in Israel. And Stavits underscores the impressive strides the Chinese have made since the commune system was consolidated, they have outstripped India's productive levels, albeit with higher inputs. Second, there is clearly a relationship between the general level of economic development and the level of agricultural productivity. This cuts across all types of systems. Within the CMEA, the most industrialized nations, East Germany and Czechoslovakia, also have the highest productivity levels. Third, Volgyes reminds us that even national or district aggregates obscure the fundamental fact that some collective farms are better than others; some farmers work harder than other farmers; and some areas are simply better supported than others.

THE POLITICS OF COLLECTIVIZATION

Rulers of governments deal daily with sobering realities. Surely the fact that collectivized agriculture - except in Israel - has not achieved a truly remarkable productive record cannot be lost on them. Why, then, does collectivization remain a viable and still popular policy alternative? Why do nations collectivize?

The most obvious answer, of course, is ideology. Cynics may dispute this, but there is little doubt that ideological considerations were a driving force in most collectivization decisions. How can a leadership claim to be building communism if the nation's rural inhabitants are not participating? Nor should one forget that private agriculture is not everywhere a thriving success. Faced with the shattered remnants of a feudal farm system and a strikingly underequipped and unsophisticated peasantry, Leninist prescriptions must have seemed welcome guidance to Mao Tse-tung in 1949. Similarly, chronic rural poverty and economic stagnation often rooted in farms too small to support a family have long troubled Latin American leaders. (16) Marxism-Leninism at least offers a rationalization and theoretic foundation for a new policy. Yet this is not to say that important secondary, and especially political, motives are not at work. Collectivization may not be immediately attractive to peasants, but it surely offers multifaceted advantages to rulers.

Control Over the Rural Population

Collectivization provides two potential means for gaining the loyalty, cooperation, and obedience of the rural populace. First, collectivization drives are typically preceded by, or carried out in the guise of, a land reform. Any redistribution of land from a feudal elite to a discontented peasantry is likely to be very popular. Regimes capitalize on these opportunities and use land reforms as propaganda themes aimed at increasing their legitimacy in the countryside. (17) Yet this powerful tool is often misused. A classic instance of such misuse is the practice of distributing individual farms to peasant families and subsequently attempting to combine these farms into collectives. This is generally perceived as a betrayal of the rural population and creates more bitterness than good will toward the regime. This is not to say that the collectivization process always fails as a means of enhancing regime support. For historical and other reasons, the Czechoslovak experience was remarkably free from peasant rancor. (18) And Stavis notes the positive political reaction of Chinese peasants, who supported the regime's attempt to achieve rural equity.

Nevertheless, the bulk of experience with collectivization suggests that it does little to help the popularity and legitimacy of government among the rural population. There is, however, a direct and widely used technique available to ensure loyalty and obedience. Administrative and managerial control is almost always hierarchical in structure; there are few collectivized systems in which the important economic and political decisions are made at the grass-roots level. Collectives themselves may be decentralized in structure, but generally they are directed by outsiders from the ruling party or the state administrative hierarchy. (19) This strict political and managerial dominance seems regressive and, in fact, recreates many of the faults of the absentee-landlord system of feudal estates. (20) However, the resulting state control over agriculture's "means of production" has proved to be an effective tool for maintaining order and enforcing loyalty in the countryside.

The Agricultural Sector as a Source of Exploitable Surplus

It is virtually axiomatic in developmental economics that the farm sector bears the burden of lifting national economies into the industrial age. Since agriculture is essentially the only large-scale productive sector in a developing economy, it is - however poor the rural population may be - the logical source of exploitable capital to feed the drive to industrialization. Thus, the food and the fiber grown, the money saved through depressed rural incomes, and the rural labor transferred to industry all become extracted capital for industrial investment. (21)

This is doubtlessly an important reason why governments overlook possible losses in productivity and opt for collectivization. Collectivization provides an effective institutional means for extracting developmental resources. Holesovsky notes that the Soviet collectivization drive clearly had such a motive and became the vehicle for a brazen transfer of men and material. (22) This pattern was repeated later in most of Eastern Europe, albeit more gently. Lazarcik notes:

... agriculture's share in total investment was relatively low, around 10 to 13 percent or less, in most of the (East European) countries in the 1950-1955 period. On the other hand, the contribution of agriculture to the total GNP was over four times as large as the investment share in Romania, three times as large in Bulgaria and Yugoslavia, three and one-half times as large in Poland, and about twice as large in Hungary and Czechoslovakia in 1950. In fact in this period the gov-

ernments sought to extract a maximum surplus from agriculture and to provide in return minimal investment support to the sector. (23)

Sustaining Incentive and Motivation

One of the most perplexing policy problems for rulers in collectivized systems has been the development and maintenance of work incentives and innovations while minimizing the conventional profit motive. The preponderance of conventional wisdom and even scholarly research agree that the profit motive is a powerful one to overcome. One observer betrays no uncertainty on this issue: "Nothing emerges more clearly from a study of economic history than this fact: that the best can be got out of the land only by its owners..." (24) more recent observers would have added "manager-operators." How, then, do political leaders supersede or circumvent this in collectivized farming?

Little evidence has been presented to show that leaders of collectivized systems offer anything that differs inherently from the basic profit incentive. Once more, the Israeli kibbutzim suggest an exception to this general rule, although Safran's discussion of the embourgeoisement of these collectives demonstrates that poverty is not a consequence of membership. The Chinese, according to Stavis, have learned the lesson of collective incentive: if the farm does well, we all do well; so let us all work hard. This is, nonetheless, a profit motive, although not a direct, individually-oriented one. It is present in nearly all collectivized systems to a certain extent.

Yet, if in Marxist-Leninist states incentive is successfully transferred from the individual to the collective level, it is still strikingly different from Safran's description of the kibbutz: "Achievement has always been stressed not primarily for the sake of profit, but rather for psychic rewards, or for its own sake." (25) Ironically, the evidence indicates that the kibbutz, however bourgeois, is far closer to the socialist collective ideal than any Marxist-Leninist state.

Francisco notes that the increase in wages paid to farmers in East Germany, and especially the equalization of industrial and agricultural wages, was highly associated with incremental increases in yields and total output. (26) The same relationship probably exists in other states as well. This wage incentive is clearly economic, and may operate on both the collective and the individual levels.

There is, however, an almost universal and effective incentive policy which is decidedly non-collective: the private plot. Again, Israel is the exception. The peasant's plot and its concomitant animals are not only an important source of supplementary income and a highly productive mechanism

for the supply of labor-intensive crops and livestock, it is also in many nations a necessary condition for collectivization. As Laird reports, Stalin knew how far forced collectivization could be carried; even under coercion, this tolerable limit has not included the elimination of private household farming. Most East European states followed the Soviet lead, but many were more timid than the Soviets. Abolition of private plots was a component of the faulted commune program in China's "Great Leap Forward." Stavis recounts a number of reasons for the program's failure, but it is interesting to note that private plots were restored when policy changed.

There may be an organizational as well as an ideological impediment to hard work and innovation on the part of both the peasants and the local bosses. Centralization and tight control from above do not create a conducive atmosphere for self-initiation, creativity, or entrepreneurship. Even though the farms may be called collectives, in practice those who work the fields are little different from hired hands. The Chinese seem to have overcome this problem to an extent by stressing localized control over local decisions. However, most collectivized systems tend to discourage innovative behavior, perceiving it as a challenge to the existing order. Moreover, local initiative is inconsistent with fulfilling centrally created production plans. Under such arrangements any hoped for rewards can come only by behaving loyally and sending flowing and encouraging reports of achievement to higher levels of authority. (27)

The Impact on Political Stability

It is very difficult to generalize about the effect of collectivization on political legitimacy or regime stability. Leading theories of political development are not very helpful; collectivization is as deeply a form of "social mobilization" as it is a policy of "institutionalization." (28) The cases that have been described and analyzed here certainly do not offer a uniform picture: the Romanian experience created great bitterness and hostility in the countryside; Chinese collectivization strengthened the state of the peasants by establishing greater equity; the Yugoslavs and Poles retreated from collectivization when it stirred too strong a peasant opposition; peasants in Czechoslovakia welcomed it; the kibbutz steeled national will and popularly symbolized idealistic collectivism for Jews at home and abroad; the kolkhoz represented Stalinist coercion, later turned into party dominance of the countryside.

What emerges most clearly from these contrasts is that collectivization's impact on political stability and legitimacy varies as a function of context and means of implementation. Where voluntarism prevailed and state ma-

terial support was substantial, collectivization seems to have strengthened governments in the countryside. Where coercion was blatant and the tradition of private peasant ownership was great, regimes have incurred political costs.

Thus, collectivization need not become a political burden for a weak government. It can increase the foundation of rural legitimacy, but this depends on a sensitive response to national context and a deliberate avoidance of coercive or exploitive tactics. Nor does the matter end when the process of collectivization is completed. A discontented rural work force can slow productivity and generate food shortages in urban areas - a most salient threat to any government. On the other hand, good financial and moral support in the post-collectivization phase can convert peasant opposition and create a positive government image among the farm population.

COLLECTIVIZATION: A POLICY FOR THE THIRD WORLD?

On the whole we have drawn a mixed picture of the performance of collectivized agriculture. The experience has been uniquely successful in Israel, seemingly positive in China, and mixed or unsuccessful in other states. There is persuasive evidence that collectivization usually fails to maximize productive potential. No doubt, collectivization can be an effective organizational strategy for control over the countryside, but this sometimes comes at the cost of legitimacy and political stability, as well as faltering output. Although the balance sheet is not completely negative if one is prepared to accept certain political, social, and economic goals, the legitimacy of these goals and the performance of the collective system raise enough questions and demonstrate enough setbacks to warrant skepticism of collectivization as a course for the Third World. Unfortunately, governments frequently embark upon a course toward national collectivization less for the improvement of food output than for ideological goals in emulation of another nation's model.

Few systematic analyses of the applicability of collectivization exist for developing nations. (29) Most nations, therefore, set out on an unsure, radical course when they choose collective transformation. There are few direct analogies to the Soviet experience, or even to Eastern European contexts. (30) Safran cites several reasons to doubt the applicability of the kibbutz model, perhaps the example most worthy of emulation. The Chinese model, while politically and economically successful for that Asian giant to date, demands an exceptionally strong rural infrastructure of political leadership that remains tuned to national policies. This may be one reason why the Chinese, who normally proselytize zealously their development policies, have not sought widespread foreign adoption of their agricultural model. (31)

Most developing nations are plagued with a surplus of rural labor. Collectivization, on the other hand, has been most successful as an adaptation to a declining and insufficient labor force. It has performed better in industrialized nations, which can afford to invest large sums in agriculture, than in poor ones. Collectivization, especially in its Marxist-Leninist application at the national level, does not then seem well-suited to food-deficit countries of the Third World.

This should not suggest that the record has been uniformly bleak or that collectivization is likely to be abandoned by nations with such systems. Evidence has shown that if today's collective farmers had never experienced this form of group farming but had been supplied with the level of inputs which their governments have recently provided, they would likely be more efficient, produce more, and be more supportive of their political leaders. Does that mean that these farmers would support referenda offering them the prospect of "decollectivization"? This is by no means certain, even in the USSR. Every farmer would lose the rationalized work schedule, the relative economic security, the freedom from personal responsibility, and, in some cases, even local government. If East German public opinion is representative, then it might well be suspected that these benefits of collectivization are highly-valued by many and would not be surrendered readily. (32) Thus, while most of the older generation might wish that collectivization had never been imposed, they might balk at scrapping the system now that it is entrenched. This fact should not, however, dissuade Third World leaders from a judicious examination of the productive and political record of collectivization before succumbing to ideological prescription. If anything is certain in an ever changing world, it is that collectivization is no panacea for an increasingly hungry, food-short planet.

NOTES

- (1) U.S. Congress, Joint Economic Committee, Agricultural Output and Productivity in Eastern Europe and Some Comparisons with the U.S.S.R. and the U.S.A., by Gregor Lazarcik, Joint Committee Print, Study Paper (Washington, D.C.: U.S. Government Printing Office, 1974), p. 385
- (2) *Ibid.*, pp. 377-78.
- (3) Laird in this volume, p. 16, and Karl-Eugen Wadekin, The Private Sector in Soviet Agriculture (Berkeley: University of California Press, 1973).

- (4) Lewis A. Fischer and Philip E. Uren, The New Hungarian Agriculture (Montreal and London: McGill-Queen's University Press, 1973), pp. 59-60. Similar and more recent data may be found in Janos Timar, "Income Distribution and Income Policy in Hungary," (mimeo), 1978. Timar notes that private farming is rationally assigned to labor-intensive crops (e.g., vegetables) and, therefore, not directly comparable.
- (5) Vaclav Holesovsky, Economic Systems: Analysis and Comparisons (New York: McGraw-Hill Book Company, 1977), p. 379.
- (6) Robert W. Campbell, The Soviet-Type Economies (Boston: Houghton Mifflin, 1974), p. 75.
- (7) Boguslaw Galeski, "The Models of Collective Farming," in Cooperative and Commune, ed. Peter Dorner (Madison: University of Wisconsin Press, 1977), p. 17.
- (8) Ibid. and Safran in this volume, p. 198.
- (9) This is true in nearly every instance investigated in this volume. See also Fischer and Uren, The New Hungarian Agriculture, op. cit., pp. 32-35.
- (10) U.S. Congress, Joint Economic Committee, Agricultural Output and Productivity in Eastern Europe, op. cit., p. 384.
- (11) Individual cases in this volume and ibid., pp. 384-85.
- (12) Voprosky ekonomiki, No. 7 (1976), p. 68.
- (13) U.S. Congress, Joint Economic Committee, Agricultural Output..., op. cit., pp. 341 and 378-79.
- (14) Karl-Eugen Wadekin, "The Soviet Kolkhoz: Vehicle of Cooperative Farming or of Control and Transfer of Resources?" in Cooperative and Commune, ed. Peter Dorner op. cit., p. 110
- (15) Holesovsky, op. cit., p. 358. Emphasis in original.
- (16) Ibid., p. 360.
- (17) See Karin Dovring's systematic analysis, "Land Reform as a Propaganda Theme: A Study in Quantitative Semantics," in Land and Labor in Europe in the Twentieth Century: A Comparative Survey of Recent

- Agrarian History, 3rd rev. ed., ed. Folke Dovring (The Hague: Martinus Nijhoff, 1965), pp. 278-376.
- (18) Hajda in this volume and Theodor Bergmann, Farm Policies in Socialist Countries (Lexington, Mass.: Lexington Books, 1975), pp. 77-99.
 - (19) Laird, Francisco, and Gilberg in this volume. Also Robert Miller, Robert C. Stuart, and Karl-Eugen Wädekin, "Some Retrospective Thoughts on the Applicability of the Soviet Model of Collectivization," in Cooperative and Commune, ed. Peter Dorner, op. cit., p. 354. Once again, of course, the kibbutzim are exceptions to this pattern.
 - (20) For an interesting perspective on this question, see Holesovsky, op. cit. p. 362; and Charles Tilly, "Food Supply and Public Order in Modern Europe," in The Formation of National States in Western Europe, ed. Charles Tilly (Princeton: Princeton University Press, 1975), pp. 394-95.
 - (21) Ibid., pp. 395-96, and Keith Griffin, The Political Economy of Agrarian Change (London: Macmillan, 1974).
 - (22) Holesovsky, op. cit., p. 364; see also pp. 355-56.
 - (23) U.S. Congress, Joint Economic Committee, Agricultural Output..., op. cit., p. 379.
 - (24) Edward Hyams, "Modern Peasantry," in Prophecy of Famine, eds. H. J. Massingham and Edward Hyams (London: Thames and Hudson, 1953), p. 142. Emphasis in original.
 - (25) Safran in this volume, p. 198.
 - (26) Francisco in this volume, p. 80.
 - (27) Miller, Stuart, and Wadekin, op. cit., p. 354
 - (28) Samuel P. Huntington, Political Order in Changing Societies (New Haven: Yale University Press, 1968); and Nam Syng Young and Lee Siegelman, "Mobilization, Institutionalization, Development and Instability: A Note of Reappraisal," Comparative Political Studies 9:2 (July 1976): 223-32. Also see Bruce Russett, "Inequality and Instability: The Relation of Land Tenure to Politics," World Politics 16 (April 1964): 442-54.

- (29) For example, Otto Schiller, "The Agrarian Question: The Communist Experience and its Implication for Developing Countries," in Agrarian Policies and Problems in Communist and Non-Communist Countries, ed. W. A. Douglas Jackson (Seattle: University of Washington Press, 1971), pp. 231-44; and Miller, Stuart, and Wadekin, op. cit.
- (30) Wadekin, "The Soviet Kolkhoz," op. cit., p. 112.
- (31) John Wong, "Communization of Peasant Agriculture: China's Organizational Strategy for Agricultural Development," in Cooperative and Commune, ed. Peter Dorner, op. cit., p. 136.
- (32) Francisco in this volume, pp. 80-81, and Fischer and Uren, op. cit., pp. 113-14.

Index

- Africa, 210, 212, 213,
- Arabs, 193, 199, 200
- Asia, 174, 210, 223, 236

- Capitalism, 143-44, 194, 199-201
205, 206, 212, 228-29, 232-33
- China (see People's Republic of
China)
- Circle, 101-02
- CMEA (see Council for Mutual
Economic Assistance)
- Collective, 3, 37, 41, 45, 47, 48,
49, 66, 67, 92, 95-96, 118, 121
123, 125-26, 180, 193-94, 199,
222, 223-31, 233-35
- Commune, 160, 169, 179-81, 228
231-32, 235
- Communist Party, 4, 9, 23, 36, 37,
38, 43, 45, 49, 54, 55, 57, 58,
59, 66-67, 81, 87-89, 91-93,
109-10, 131-33, 138-39, 147-
48, 167, 172-73, 180-81, 184
- Consolidation, 139-40, 142
- Controls
 - material, 64-65, 131-32, 134
142, 173, 176, 178-80, 197-
99, 232-33,
 - Controls (cont'd)
 - political, 3-4, 5-6, 7, 36, 38, 41,
68, 72, 125-26, 131-33, 137-39,
160, 173, 177, 180-81, 184, 192,
199, 200, 213, 232-33, 235, 236
- Cooperative, 25-26, 91-92, 96, 103-
04, 115, 118, 132-33, 137-42, 146,
151-52, 158-60, 173, 199
(see also Circle, Moshav)
- Costs, 7-13, 52-59, 134-35, 150, 176,
235-37
 - economic, 54, 136, 150, 180
 - production, 9-13, 54, 56, 132-33,
150, 228, 233-34
 - social, 9, 179-81, 206, 212, 232-
33, 235
- Council for Mutual Economic Assis-
tance, 80, 147-50, 151, 222, 223,
231
- Cultural Revolution, 169, 179
- Czechoslovakia, 76, 81, 91, 99, 123,
130-54, 222, 228, 231, 233, 235-
36

- Decision making, 4, 18, 25-27, 36,
37, 59, 64-65, 67, 126-27, 131-33,
140, 178, 197, 199, 232-33, 235
- disincentive, 132-33, 134, 198, 199,
232, 233, 235

- East Germany (see German Democratic Republic)
- Eastern Europe, 23, 25, 26, 27, 28, 34, 58, 137, 142, 147, 192, 199-200, 210-11, 222-29, 230, 233-36
- Economic development, 133, 135-36, 137, 139, 142-48, 148-49, 150-51, 180-83, 198-99, 202, 231-33
- Education, 44-45, 80-81, 125-26, 134, 136-37, 150-51, 174, 179, 183, 184, 195, 205-07,
- Efficiency, 15, 17, 63, 68, 72, 73, 74, 75, 76, 80-81, 87, 95-101, 109-10, 115, 118, 121, 123-25, 132-33, 134, 142, 158, 184-85, 188, 200-01, 208-09, 222, 227, 228, 231, 232, 237
- Ejido, 227
- Elite, 9, 159, 180, 185, 192, 201, 203-05, 232
- Embourgeoisement, 204-05, 206-11, 233-34
- Equality, 136, 137-38, 158, 159, 163, 164, 166, 174, 177, 185, 188, 195, 202, 205, 206-09 passim, 210, 232-35
- Exploitation, 58, 165, 185
- Exports, 25, 28, 56, 93-94, 95, 126, 193
- Famine, 7, 8, 162
- Federal Republic of Germany, 63, 68, 69, 70, 72, 73, 74-76, 99, 223, 228-29
- Fertilizer, 13, 15-16, 26-27, 44, 45, 65, 74, 78, 95-96, 101, 103-04, 109-10, 123, 143-44, 151, 180-81, 181-83, 184, 185, 227
- Forced collectivization, 6-9, 13, 23, 38, 41, 43, 63, 68, 70, 77-78, 81, 109-10, 123, 124-25, Forced collectivization (cont'd) 131-35, 159, 164, 172-73, 180-81, 199-200, 228-29, 234
- German Democratic Republic, 27, 63-81, 99, 222, 228, 231, 234, 237
- Gierek, Edward, 95, 102, 104,
- Goals, 5-7, 45, 49, 101, 102, 130 134, 136, 137, 142, 149-51, 199-201, 227, 228, 236-37
- Gomulka, Wladyslaw, 90, 91, 92, 93, 94
- Growth, rates of, 13, 54, 74, 75, 78, 132-33, 137, 142, 143-46, 167-69, 181-84, 195-97, 198, 200-01, 225-27, 228, 229
- Holesovsky, Vaclav, 227, 229, 233
- Hungary, 28, 108-26, 222, 223-27, 228, 233
- Ideology, 3, 5-6, 16-17, 23-24, 25-26, 36, 45, 56-57, 58, 59, 63-69, 78, 81, 87-88, 91, 92, 130-34, 139, 148-52, 160, 174, 185, 195, 199-203, passim, 204, 205, 206-11, passim, 213, 222, 228, 229, 231-32, 234, 235, 236-37
- Incentive, 58, 64-65, 78-81, 92-95, 101, 118, 134, 136, 137, 150, 151, 158, 169, 173, 176-80, 184, 192-195, 197-200, 206, 212, 222, 227-32, 233-36, 237
- Income, 80, 125-26, 133-34, 135-39, 142, 144, 150, 151, 158-59, 165-66, 174, 176-77, 193-94
- India, 9, 167-69, 181, 185, 231
- Industrialization, 4-8, 23, 25, 26, 36, 38, 41, 43, 93, 94, 131-33, 146, 151, 162, 181-83, 193-97, 208-09, 210, 212, 228-31, 232, 236-37
- Inequity, 34, 36, 163-66, 174, 177

- Initiative, 18, 24-26, 136, 140-41, 176-77, 180, 200, 235,
- Investment, 15-16, 26, 37, 38, 41, 43, 33, 54-55, 65, 69-70, 72-73, 118, 121, 123, 124, 126, 133, 134, 142, 143, 144, 147, 150-51, 163, 176-78, 186, 194, 197, 222, 223, 227, 229, 232, 233, 236, 237
- Israel, 192-219, 227, 231, 234, 236
- Kibbutz, 192-219, 227, 228, 233-37
- Knesset, 203, 204, 205, 210
- Kolkhoz, 3, 9, 18, 192, 201, 210, 212, 235
- Kulak, 9, 10, 91, 103, 199, 212
- Labor, 15, 24-26, 37, 38, 43, 45, 55-60, 69-70, 78, 80, 81, 96-99, 114, 118, 121, 124-25, 126, 134, 144, 146-47, 151, 165, 173, 177, 185, 193-94, 195, 198-202, 207-209, 211, 222, 231-33, 236, 237
- Labor productivity, 18, 24-25, 28, 48, 54, 93, 94, 134, 137, 142, 143, 193-94, 197, 201, 222, 227, 231, 235
- Land distribution, 32-34, 37-38, 64, 68, 90, 109-10, 124, 130-32, 141, 142, 146, 147, 151-52, 158, 164, 178-79, 227, 232
- Land ownership, 130-32, 140-41, 158, 160, 164, 166, 176, 177, 179, 192, 193, 199, 200, 212, 232, 236
- Land reform, 64, 65, 90, 109-10, 125, 131, 158, 159, 163-65, 179, 180-81, 232-33
- Lazarcik, Gregor, 222, 223, 233
- Legitimacy, 56, 59, 64-65, 76-81, passim, 87, 88, 123, passim, Legitimacy (cont'd) 167, 172-74, 232, 235-37
- Lenin, Vladimir I., 5, 88
- Local government, 160, 173, 185, 202, 232, 235, 237
- Machine Tractor Stations, 7-8, 65
- Management, 3-4, 9, 17-18, 25-26, 36, 72, 126, 132, 136, 137, 138, 140-41, 150, 151, 169, 173, 176, 177, 179-80, 181, 193, 197-99, 202-03, 228, 229, 232, 233, 235
- Mao Tse-tung, 160, 162, 166, 167, 174, 232
- Marketing, 24, 25, 28, 72, 87, 103, 123, 125, 130, 137, 149, 179, 193, 199, 202 (see also Export)
- Marxism-Leninism (see Ideology)
- Mechanization, 16, 24, 26-28, 32, 38, 41, 43-45, 65, 69-70, 78, 101, 130, 143, 148, 179, 180, 183, 185, 193-94, 197, 210, 222-23, 228-29
- Migration, 17-18, 24, 26, 34, 41, 43, 56, 63, 68, 70, 72-73, 78, 81, 99, 101, 115, 162, 177, 179, 184, 200, 208, 210-11
- Mitrany, David, 28, 34
- Modernization, 41, 43, 95, 108, 118, 136, 139, 140, 150-51, 152, 180-84, 206, 228
- Moshav, 193, 194, 198, 206, 212
- Motivation, 126, 131, 150, 160, 162, 163, 201, 227, 228, 231-35, passim, 236-37
- NEP (New Economic Policy), 5, 6, 13
- Nutrition, 13, 147, 151, 152, 158, 162, 169, 185, 195, 197, 222, 227
- Opposition (see Reaction, Farmer)

- Peasants, 3-10, 25, 34, 38, 58, 89, 90, 92, 123, 125, 160, 164-65, 165-66, 173, 177, 228, 232
- Peasant reaction (see Reaction, Farmer)
- People's Republic of China, 158-91 192, 223, 231, 233-37
- Planning, 37, 41, 55, 64, 72, 87, 132, 133, 138-41, 149, 126
- Poland, 76, 81, 86-89, 222, 223, 234, 235
- Policy making, 131, 132, 134, 136-39, 147, 149, 150, 158, 159, 180, 184, 185, 195, 202, 227, 232, 235
- Politics, 6, 25, 26-27, 32, 68, 125, 131-34, 139, 147, 158, 169, 173, 185, 200-05, passim, 211, 212, 232-33, 236-37
- Population, 32, 34, 93, 99, 109, 173, 180, 185, 195, 205-09, 210, 227, 228
- Private farming, 25, 26, 65, 66, 67, 72, 74, 75, 76, 77, 78, 80, 81, 87, 91, 92, 95-99, 102, 103, 114-15, 118, 130, 134, 167, 169, 176, 178, 181, 185, 223-27, 228-29, 231, 232, 235
- Private sector, 16-17, 25, 38, 41, 48, 54, 57, 58, 66, 73, 74-75, 87, 115, 118, 121-23, 126, 121, 132, 141, 146, 158, 163, 164, 165-66, 177, 193, 194, 198, 199, 200, 211, 222, 223-27, 231, 234-35
- Production, 6-7, 10-13, 16-17, 24, 26, 27, 28, 47-48, 54-55, 63, 68, 72-73, 78, 81, 87, 95, 109, 121, 126, 131, 137, 139, 140, 142, 143, 147, 160-62, 167-69, 173-74, 178, 181, 182, 192, 193, 195, 198, 212, 222, 223-27, 228-37
- Productivity, 10, 13-15, 17, 25-26, 28, 32, 41, 45, 54-55, 58, 63, 72-77, 78, 80, 81, 86, 87, 96, 115, 121, 131, 134, 136, 142, 148, 158, 169, 178, 181, 182, 184, 185, 193-94, 199, 201, 212, 223, 223-27, 228, 229, 233, 234 (see also Labor productivity)
- Profit, 24, 25, 115, 123, 176, 193, 194, 197, 199, 202, 206, 234
- Reaction, farmer, 10-13, 57, 59, 66, 76-81, 91, 121, 123-126
negative, 6, 7, 58, 66-67, 69-72, 73, 76-78, 92, 101, 110, 132, 133, 139, 162, 173, 180, 199, 228, 232, 235; positive, 132, 172, 173, 185, 210, 228, 232, 233, 236
- Research, 43-45, 136, 140, 142, 148, 151, 178, 183-84
- Resources, 28, 93, 94, 136, 137, 144, 148-51, 174, 177, 178, 194, 195, 197, 199, 233
- Revolution, 37, 43, 88-92
Cultural Revolution, 169, 198
"from above," 4, 36
- Romania, 23-59, 123, 233, 235
- Self-sufficiency, 136, 142, 152, 199, 206, 212
- Size of farm, 34, 41, 86-87, 92, 99-101, 102, 121, 123, 125, 131, 132, 140, 141, 170, 194, 195, 223, 229, 232
- Socialism, 5, 25, 26, 27, 70, 73, 78, 81, 90, 130-31, 136, 139, 148-50, 199-201, 212-13, 234
- Social-political development, 23, 41, 58, 130, 137-40, 147, 163, 178, 227
- Soviet Union (see Union of Soviet Socialist Republics)

- Specialization, 103, 139-40, 142, 148, 193
- Stability, 87, 142, 177, 229, 235-36, 173
- Stalin, Joseph, 4-7, 65, 66, 92, 109-10, 150
- Stalinism, 4-9, 13, 17, 23, 26, 89, 91, 92, 132, 134, 135, 139, 150, 234-35
- State farm, 3, 25-26, 37-38, 41, 45, 47, 48-49, 103, 123, 132, 137, 139-42, 146, 151-52
- Subsidies, 103, 179, 180, 197-98, 199, 210-11
- Taxes, 65, 81, 163, 173, 178, 184, 197-98, 199
- Technology, 13, 14, 74, 87, 93-95, 123-24, 125-26, 134, 136, 140, 142, 148, 150, 151-52, 169, 178-80, 208-09, 212
- Third World, 81, 212-213, 236-37
- Transport, 55, 93-95
- Turks, 193, 199
- Ulbricht, Walter, 67, 68, 72, 78
- Union of Soviet Socialist Republics, 3-18, 26-28, 65, 68, 69, 88-92, 92, 94, 142, 148, 148-52, 163, 173, 174, 192, 200, 201, 210, 212, 222-23, 227-31, 233-37
- United States of America, 15, 17, 68, 76, 94
- Voluntary collectivization, 6, 37, 58, 64-67, 69, 77-78, 81, 91, 92, 124, 199, 200, 212, 228, 235
- Wages, 95, 133-34, 137, 142, 158, 192, 197, 234
- Weather, 10, 13, 15, 54, 73, 115, 131, 142, 143, 169, 176
- West Germany (see Federal Republic of Germany)
- World War II, 5, 13, 23, 36, 109
- Yishuv, 193, 199-201
- Yugoslavia, 77, 88, 92, 202, 227, 235

About the Editors and Contributors

RONALD A. FRANCISCO (Ph. D. , University of Illinois, Urbana-Champaign), Assistant Professor of Political Science and Soviet and East European Area Studies at the University of Kansas, is the author of "The SPD in East Berlin, 1945-1961," and "The Future of East German Agriculture."

ROY D. LAIRD (Ph. D. , The University of Washington), Professor of Political Science and Soviet and East European Area Studies at The University of Kansas, founded the ongoing (informal) Conference on Soviet and East European Agricultural and Peasant Affairs, and authored The Future of Agriculture in the Soviet Union and Eastern Europe, 1977 with Joseph Hajda, and Betty A. Laird; To Live Long Enough: The Memoirs of Naum Jasny, Scientific Analyst, 1976 with Betty Laird; and, The Soviet Paradigm: An Experiment in Creating a Monohierarchical Polity, 1970.

BETTY A. LAIRD, an independent research analyst working with her husband in the Soviet field and in her own interest area, Kansas history, has written Soviet Communism and Agrarian Revolution, 1970 with Roy D. Laird; and Soil of Our Souls, 1976 with Martha Parker.

JAROSLAW A. PIEKALKIEWICZ (Ph. D. , Indiana University), Professor of Political Science and Soviet and East European Area Studies at the University of Kansas, has published The Soviet Invasion of Czechoslovakia: Its Effects on Eastern Europe (with Edward Czerwinski, eds.), 1972; Public Opinion Polling in Czechoslovakia 1968-69: An Analysis of Surveys Conducted During the Dubcek Era, 1972; and Communist Local Government - A Study of Poland, 1975.

JOSEPH HAJDA (Ph. D. , Indiana University), Associate Professor of Political Science and Research Political Scientist with the Kansas Agricultural Experiment Station, served in the Office of the U. S. Secretary of Agriculture, 1962, and in the White House Office of the Special Representative for Trade Negotiations, 1964-1965, and edited Political Aspects of World Food Problems, 1978 with Aruna Michie, and Thomas Sloan.

BENEDICT STAVIS (Ph. D. , Columbia University), Assistant Professor of Agricultural Economics at Michigan State University, East Lansing, has specialized in research on rural development strategy in China, and written The Politics of Agricultural Mechanization in China, 1978 and Making Green Revolution, 1975.

WILLIAM SAFRAN (Ph. D. , Columbia University), Professor of Political Science, specializing in comparative and Western European politics at the University of Colorado at Boulder, has published Veto-Group Politics: The Case of Health-Insurance Reform in West Germany, 1967; The French Polity, 1977; and Ideology and Politics: The Socialist Party of France, 1978, of which he is the co-author.

IVAN VOLGYES (Ph. D. , American University, Washington, D. C.), Professor of Political Science and Director of the Graduate Program on Comparative Rural Transformation at the University of Nebraska, is the author or editor of ten volumes and more than a score of articles dealing with various facets of Eastern European politics, including Politics in Hungary, 1976, with Peter A. Toma.

TROND GILBERG, Professor of Political Science and Associate Director of the Slavic and Soviet Language and Area Center at The Pennsylvania State University, is the author of The Soviet Communist Party and Scandinavian Communism, 1973 and Modernization in Romania since World War II, 1975, and has contributed numerous chapters to other books in the field.

Pergamon Policy Studies

- No. 1 Laszlo—*The Objectives of the New International Economic Order*
- No. 2 Link/Feld—*The New Nationalism*
- No. 3 Ways—*The Future of Business*
- No. 4 Davis—*Managing and Organizing Multinational Corporations*
- No. 5 Volgyes—*The Peasantry of Eastern Europe, Volume One*
- No. 6 Volgyes—*The Peasantry of Eastern Europe, Volume Two*
- No. 7 Hahn/Pfaltzgraff—*The Atlantic Community in Crisis*
- No. 8 Renninger—*Multinational Cooperation for Development in West Africa*
- No. 9 Stepanek—*Bangladesh—Equitable Growth?*
- No. 10 Foreign Affairs—*America and the World 1978*
- No. 11 Goodman/Love—*Management of Development Projects*
- No. 12 Weinstein—*Bureaucratic Opposition*
- No. 13 De Volpi—*Proliferation, Plutonium, and Policy*
- No. 14 Francisco/Laird/Laird—*The Political Economy of Collectivized Agriculture*
- No. 15 Godet—*The Crisis in Forecasting and the Emergence of the "Prospective" Approach*
- No. 16 Golany—*Arid Zone Settlement Planning*
- No. 17 Perry/Kraemer—*Technological Innovation in American Local Governments*
- No. 18 Carman—*Obstacles to Mineral Development*
- No. 19 Demir—*Arab Development Funds in the Middle East*
- No. 20 Kahan/Ruble—*Industrial Labor in the U.S.S.R.*
- No. 21 Meagher—*An International Redistribution of Wealth and Power*
- No. 22 Thomas/Wionczek—*Integration of Science and Technology With Development*
- No. 23 Mushkin/Dunlop—*Health: What Is It Worth?*
- No. 24 Abouchar—*Economic Evaluation of Soviet Socialism*
- No. 25 Amos—*Arab-Israeli Military/Political Relations*
- No. 26 Geismar/Geismar—*Families in an Urban Mold*
- No. 27 Leitenberg/Sheffer—*Great Power Intervention in the Middle East*
- No. 28 O'Brien/Marcus—*Crime and Justice in America*
- No. 29 Gartner—*Consumer Education in the Human Services*
- No. 30 Diwan/Livingston—*Alternative Development Strategies and Appropriate Technology*
- No. 31 Freedman—*World Politics and the Arab-Israeli Conflict*
- No. 32 Williams/Deese—*Nuclear Nonproliferation*
- No. 33 Close—*Europe Without Defense?*
- No. 34 Brown—*Disaster Preparedness*
- No. 35 Grieves—*Transnationalism in Politics and Business*